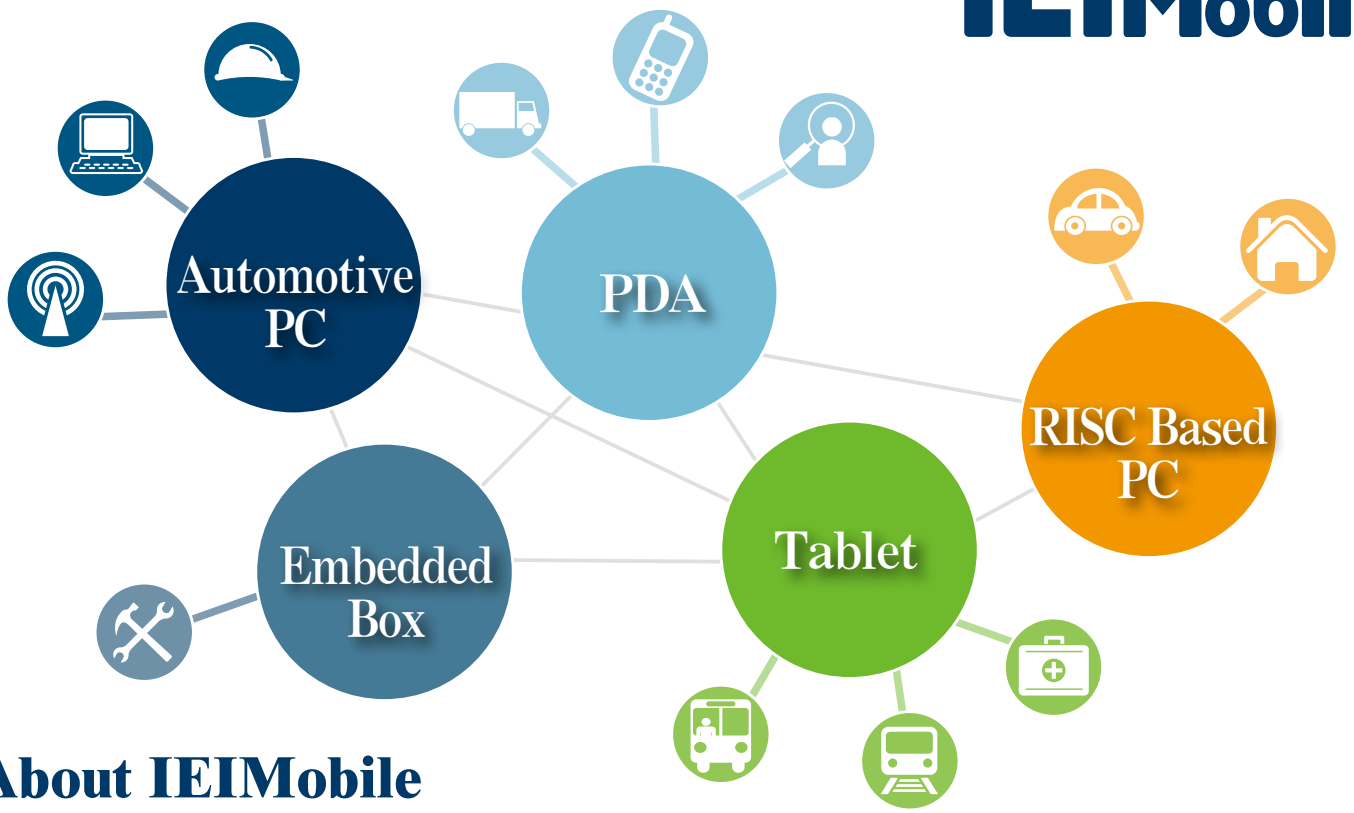



# About IEIMobile

IEIMobile was established as an independent business unit by IEI Integration Corp. We are a professional mobile solution provider seeking to revolutionize the way people work. Our goal is to provide our customers with reliable, affordable and ready-to-use mobile devices by developing mobile industrial products with the most advanced communications and easy-to-use mobile applications.

Our comprehensive product portfolio includes tablet PCs, industrial PDAs and in-vehicle (automotive) computing devices. We serve the needs of a wide range of industries such as retail, logistics, healthcare, construction, manufacturing, transportation and hospitality. By integrating design and innovation technologies with exceptionally-made mobile devices and manufacturing know-how, IEIMobile offers a superior production model for clients requiring design, engineering and Original Design Manufacturing (ODM) services.

At the heart of our designs is a celebration of the true spirit of mobile technology – the idea that businesses should be empowered to operate with greater autonomy, efficiency and imagination. More value-added features can be customized and integrated by using our products as a service-oriented wireless platform. IEIMobile is here to help businesses realize their full potential.

## Our Roots, Our History:
## Industry Insight and Expertise

For the first time in 2004, one out of every six people was connected wirelessly anywhere, anytime, enabling people around the world to expand their personal relations into powerful networks and unparalleled business opportunities. As a leading industrial computer solution provider, IEI IEI Integration recognized this record breaking event as a defining trend towards mobile computing in the industrial sector that will be met with explosive growth as mobile communication in the consumer market reaches maturity.

Instead of evolving and expanding organically in response to new market demands, and being limited by the scope of existing product lines and services, IEI Technology sought to utilize its extensive industry experience and indisputable expertise by creating an independent business unit - IEIMobile.

Being rooted in IEI Integration we are blessed with years of industry insight and expertise. Through our ability to identify market opportunities and trends, as well as develop affordable, high quality devices, IEIMobile focuses on creating a valued brand worldwide.

## Partner for Growth

To seize opportunities in the fast-growing mobile computing market, IEIMobile, part of IEI Integration, seeks partners that deliver both a competitive advantage and a bottom-line impact to our clients. We approach collaborative relationships with the same passion and commitment that we invest in our client relationships. Building on a legacy of quality and industry leadership, we offer opportunities for new venture creation as well as professional ODM services to meet individual client needs.

# Mobile Device Management Solution

**Revolutionary Cloud-based Solution to Centrally Manage, Secure and Deploy Mobile Data, Applications and Devices**

## ■ At a glance

- **Increase security and compliance enforcement**
- **Reduce the cost of supporting mobile assets**
- **Enhance application and performance management**
- **Increase operational efficiency and effectiveness**
- **Cloud model for fast deployment and effortless scaling**
- **Comprehensive management of all popular mobile OS**

## ■ All in one

- **Mobile Application Management**
- **Mobile Content Management**
- **Mobile Security and Policy Management**
- **Mobile Email Management**

## The Challenge

It can't be denied: Enterprise mobility is truly taking off. Employees are no longer contained within an office's four walls. The Enterprise IT is in middle of seismic shift in the evolution or some might say revolution, of Mobility. Growing number of mobile platforms and devices are used in enterprise day by day. Multiple applications, operating systems and back-end data sources all push mobile administration and management tasks into the red zone.

## The Solution

IEIMobile cloud based Mobile Device Management (MDM) offers fully integrated solution suite and optional set of managed services that provide enterprises with fully integrated cloud platform that simplifies MDM with rapid deployment, visibility and control that spans across mobile devices, applications and documents.

Built on secure and **multi-tenant cloud architecture**, IEIMobile MDM enables instant enterprise mobility management in just minutes with effortless scalability, weather from ten to 10,000 users and seamless integration into existing enterprise systems. Because there is no server to install, upgrades to latest technology are automatic.

Affordability is unmatched with **no upfront costs** and **no expensive change management**.

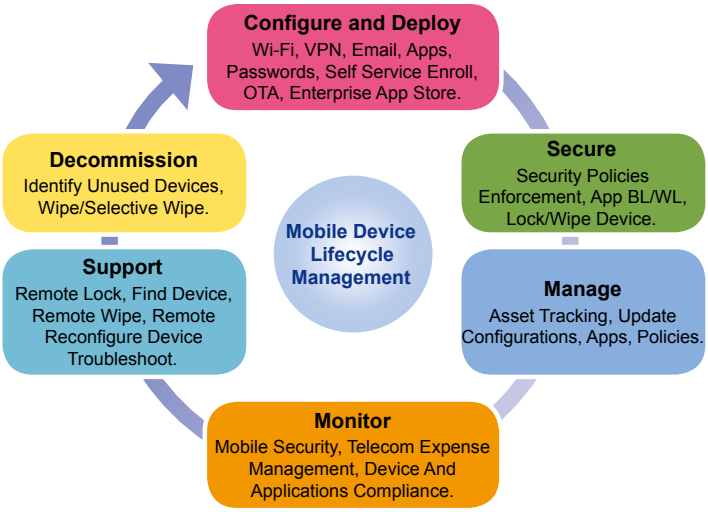
## ■ IEIMobile MDM Solution

IEIMobile is proud to present MDM solution in partnership with SAP® and Amazon Web services® (AWS®). Our MDM Solution is based on SAP®'s world leading MDM solution Afaria® and is hosted on one of the most popular, secure, robust and trusted cloud platforms - Amazon Web Services® (AWS®).

# Mobile Device Lifecycle Management with IEIMobile MDM Solution

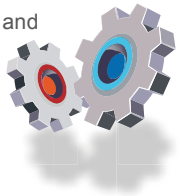
As advanced mobile devices and applications become critical to an organization's success, IT is challenged with efficiently managing the full lifecycle management of devices across the enterprise.

IEIMobile Mobile Device Management provides IT organizations the control they need to securely manage mobile devices throughout their entire lifecycle, simplifying these processes across multiple device types and mobile operating systems in a single console. With discovery, configuration, apps, and policy management, organizations now have the peace of mind that their mobile devices, critical data, and networks are secure from potential threats.


Configure and Deploy
Wi-Fi, VPN, Email, Apps, Passwords, Self Service Enroll, OTA, Enterprise App Store.
Secure
Security Policies Enforcement, App BL/WL, Lock/Wipe Device.
Manage
Asset Tracking, Update Configurations, Apps, Policies.
Monitor
Mobile Security, Telecom Expense Management, Device And Applications Compliance.
Support
Remote Lock, Find Device, Remote Wipe, Remote Reconfigure Device Troubleshoot.
Decommission
Identify Unused Devices, Wipe/Selective Wipe.
Mobile Device Lifecycle Management

## ■ Configure and deploy

- Activate device using IEIMobile MDM Solution URL or via self service portal.
- Enroll corporate devices individually.
- Authenticate users and devices through basic and directory-services-based authentication.
- Instantly configure policies, settings, certificates and access enterprise accounts over the air.
- Wirelessly provision internal and recommended apps through the enterprise app catalog.



## ■ Secure

- Ensure authorized and compliant devices have secured access to business resources and accounts.
- Protect personal and corporate data and the entire device through encryption and password policies.
- Prevent unauthorized device use by locking down device features and enforcing restrictions.
- Audit devices for compliance with corporate policies, settings, applications, third parties and more.
- Automate business policies for non-compliant or jail broken devices.

## ■ Manage

- Streamline and automate mobile asset and inventory management.
- Update and provision new policies, settings, certificates, apps, software and access to enterprise.
- Accounts – Exchange Active Sync, Wi-Fi, VPN, CA, LDAP and more – over the air.
- Push down configuration problems, apps, software or remote lock/wipe commands on-demand, at a scheduled time or the next time a device or group of devices checks in.

## ■ Monitor

- Monitor both devices and network health status and statistics for exceptions.
- Track user activity such as app downloads, voice, SMS and data usage against pre-defined thresholds, white or black lists.
- Monitor system access and console user activity through detailed event logs.
- Set up alerts and automated business rules for specific device or network actions, user actions or system performance.
- Generate actionable reports with automated distribution across the IT team.

## ■ Support

- Perform device diagnostics remotely to identify issues.
- Provide remote assistance to mobile users and communicate from the console via SMS messaging.
- Take remote control of a device for more efficient troubleshooting.
- Provide users with remote management capabilities through a self-service portal.
- Manage troubleshooting cases and system incidents using an integrated case management system.

## ■ Decommission

- Identify unused/stolen or lost devices.
- Remotely wipe out the stolen and lost devices.
- Wipe out and re-commission unused devices with new configurations to new duty.

# Why We Are Different

- **Cross platform,** web-based solution with single console device administration.
- Allows IT to deliver fixes, upgrades remotely to mobile devices in the field.
- Minimizes user downtown with bandwidth optimization.
- Secure access, encryption, data backup and remote wipe capability.

## ■ Enterprise app store

IEIMobile MDM enables IT administrators to centrally deploy, manage and secure internal and public applications via a custom app catalog. Only compliant users can view, download and update enterprise apps as well as accessing purchased, recommended and white-listed public apps in public app stores.

## ■ Multi-tenant architecture

Allows one instance of software to support multiple groups in your organization. Each tenant provides additional layer of security, configuration, customization and access control.

■ Provides state of art content management and distribution system.

## ■ Telecom expense management

Versatile telecom expense management module allows enterprises to reduce telecom expenses through real-time monitoring and alerting of roaming status across all controlled devices, regardless of carrier and location.

## ■ Robust reporting

IEIMobile MDM generates actionable, result-oriented reports and provides automated distribution to IT-defined lists. Enterprises can choose from IEIMobile MDM's library of 100+ reports and customize reports based on specific data elements captured in system.

## ■ Secure email gateway

The Secure Email Gateway monitors every device interaction with your corporate email infrastructure to identify any exceptions or threats. Its flexible rules engine allows or blocks devices using white lists and black lists or manually based on exceptions.

## ■ Intelligent notifications

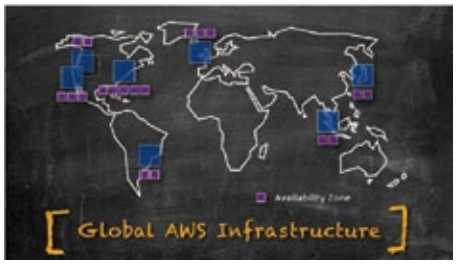
IEIMobile MDM notifies IT departments when a pre-defined incident occurs via email, text or dashboard message. To minimize impact on IT operations, MDM can be configured with business rules to proactively respond to specific incidents affecting security or compliance.

## ■ Cloud based solution

IEIMobile MDM Solution is a cloud-based solution. IEIMobile MDM is based on Amazon Web Services® (AWS®), one of the most trusted, robust and safest cloud platforms in the world. Being cloud solution makes us most elastic, Flexible, Reliable, Secure, Inexpensive solution.

- Fast deployment and effortless scaling.
- No upfront investment: Replace upfront infrastructure investment with low monthly costs.
- No overhead of infrastructure management- It's taken care of!!!
- Global Reach – AWS has available zones and edge locations worldwide which ultimately give you the best performance of IEIMobile MDM anywhere in the world. **No Latency Issues.**

amazon web services



# Business Model

We offer IEIMobile MDM Solution with three plans to our customers-Basic, Gold and Platinum. Please refer the chart below for details:

| Feature | Basic Plan | Gold Plan | Platinum Plan (Completely Managed) |
|---|---|---|---|
| IEIMobile MDM License | • With purchase of each selected IEIMobile device (PDA, Tablets, Automotive PCs) "One Single Client License" of IEIMobile MDM Solution is included. So you own the license.<br>• IEIMobile will provide only infrastructure, installation and maintenance services by hosting MDM for you in the cloud. | | |
| Implementation | Hosted on AWS® Cloud. | | |
| Server Instance | Shared with other customers | Dedicated instance (NO sharing of instance with other customers) | Dedicated instance (NO sharing of instance with other customers) |
| Contract | Yearly (additional discount for 2- or 3-year contract) | | |
| Billing | Billed yearly with MOQ 100 | | |
| IEIMobile Responsibilities | • Install and maintain Afaria servers<br>• 16-hrs technical training for customers (on-line or in-Person)<br>• Basic technical support provided for two months via email. | • Install and maintain Afaria servers<br>• 16-hrs technical training for customers (on-line or in-Person)<br>• Priority technical support provided for a contracted period via e-mail. | • Fully managed service<br>• Requirement gathering<br>• Accordingly set up and manage policies for customers<br>• We manage your resources for you. The customer simply needs to convey the requirements and rest assured.<br>• Install/Maintain the servers<br>• 16-hrs technical training for customers (on-line or in-Person)<br>• Priority technical support provided for a contracted period via e-mail. |
| Pricing | **4.99 USD** per device per month | Please contact sales | Please contact sales |

# Special Offer - Demo Kit with Free Hosted IEIMobile MDM Solution

We are offering a demo kit so that you can try our MDM solution. Demo kit includes one of the most versatile and ruggedized handheld devices **Modat-530** along with a **special 3 months trial account** for IEIMobile MDM solution **for free.** So just login and start trying our MDM solution.

# Ordering Information

MODAT-530

| Part No. | Description |
|---|---|
| MODAT-530-MDM | 1. One Modat-530 with pre-Installed IEIMobile MDM Client.<br>2. One license for IEIMobile MDM Client.<br>3. Three-month free IEIMobile MDM cloud infrastructure with MDM server installed on the cloud. You will get one user-ID and password, so just login and start trying our MDM solution. |

# Supported Devices

| Product | | | | | |
|---|---|---|---|---|---|
| | Tablet PC | Tablet PC | Tablet PC | Automotive PC | Risc Based PC |
| Model | ICECARE-07 | ICECARE-05 | ICELOG | iKarPC Lite | IOVU-07F-AD |
| LCD Size | 7" | 5" | 7" | 7" | 7" |
| Processor | TI Sitara™ AM3715 1GHz | TI Sitara™ AM3715 1GHz | Freescale™ i.MX6 Cortex A9 Quad-Core 1GHz | TI ARM Cortex A8 AM3715 1GHz | Freescale™ i.MX6 Cortex A9 Quad-Core 1.2GHz |
| Product | | | | | |
| | Industrial PDA | Industrial PDA | Industrial PDA | Industrial PDA | Industrial PDA |
| Model | MODAT-100 | MODAT-335 | MODAT-335A | MODAT-530 | MODAT-531 |
| LCD Size | 3.5" | 3.5" | 3.5" | 5.3" | 5.3" |
| Processor | Marvell® PXA 310 624MHz | Marvell® PXA 310 624MHz | TI Sitara AM3715 1GHz | Quad Cortex-A7 1.2GHz | Quad Cortex-A7 1.2GHz |

# Automatic Identification and Data Capture (AIDC) Technology

## Near Field Communication (NFC) Technology

### ■ Comparison of Short-range Communication Technologies

| Technology | Standard | Frequency | Range | Data Rate |
|---|---|---|---|---|
| RFID | ISO 10536 | 13.56MHz | 0~2 mm | 9.6 Kbps |
| | ISO 14443 | 13.56MHz | 0~10 cm | 106, 212, 424 Kbps |
| | ISO 15693 | 13.56MHz | 0~70 cm | 26 Kpbs |
| NFC | ECMA-340, 352, 356, ISO/IEC 18092, 2148, 1ETSI TS 102 190 | 13.56MHz | 0~20 cm | 106, 212, 424 Kbps |
| Infrared | IrFM | 405 THz-300 GHz | 20~30cm low power to 1~2m | 9.6 Kbps~4 Mbps |
| Bluetooth | Bluetooth V1.2 | 2.4GHz | 10~80m | 720Kbps |

- NFC, as an open platform technology, is standardized in the NFC Forum, which was found by Philips (Mifare), Sony (FeliCa), Samsung and Nokia.
- NFC is based on and the extension of RFID. It operates on 13.56 MHz frequency and is compatible with today's field proven contactless Mifare® and FeliCa™ smart cards
- NFC communication range is up to 10 cm.
- NFC standard supports different data transmission rates such as 106kbps, 212 kbps, and 424 kbps.

### ■ Three NFC Application Families

The Near Field Communication (NFC) extends the RFID technology, and utilizes the 13.56MHz frequency to communicate and exchange data between devices which are in close proximity (less than 10cm) to each other. Popular applications include payment, gaming, and social networking (e.g. mobile gaming and device-to-device communication).

**Card Emulation Mode**

An NFC-enabled device acts as a reader when in contact with tags. In this mode, the device can act as a tag or a contactless card for existing readers.

**Peer-to-peer Mode**

Two NFC-enabled devices can exchange data. Peer-to-peer mode is standardized on the ISO/IEC 18092 standard.

**Reader/Writer Mode**

The NFC enabled device can read or write data to any of the supported tag types in a standard NFC data format.

## Radio Frequency Identification (RFID)

The RFID technology uses radio frequency as a data transmission intermediary. It can be classified by the frequency band the RFID system adopts since different frequencies will result in different physical attributes.

| Frequency band | Operating range* | Applications | Benefits | Drawbacks |
|---|---|---|---|---|
| LF, < 135KHz | < 0.5m | •Access control<br>•Animal tracking<br>•Product authentication | Works well around water and metal | •Short read range<br>•Slower read rate |
| HF, 13.56MHz | < 1m | •Smart cards<br>•Library books<br>•Airline baggage | Low cost | Higher read rate than LF |
| UHF 860MHZ to 930MHz | < 4m | •Pallet tracking<br>•Carton tracking<br>•Parking lot access | EPC standard built around this frequency | Does not work with items of high water or metal content |
| Microwave 2.4GHZ | < 1m | •Airline baggage<br>•Electronic toll collection | Most expensive | Fastest read rates |

* The operating range depends on reader power and operating environment

## ■ HF RFID and NFC Supported Models

| | ICECARE-07 | ICELOG | iKarPC-Lite | ICECARE-10W | ICEROCK3 | AFL2-xxxA Series | POC-W22A-H81 |
|---|---|---|---|---|---|---|---|
| Size | 7” | 7” | 7” | 10.1” | 10.1” | 7” ~22” | 22” |
| Protocols supported | •ISO/IEC 14443A, ISO/IEC 14443B PCD 106 kbit/s to 848 kbit/s<br>•ISO/IEC 14443A, ISO/IEC 14443B PICC 106 kbit/s to 424 kbit/s<br>•MIFARE reader encryption mechanism (MIFARE 1K/4K)<br>•Reading NFC Forum tags (MIFARE Ultralight, Jewel, FeliCa open tag, ISO/IEC 14443-4)<br>•Reading DESFire card<br>•ISO/IEC 15693/ICODE reader<br>•NFC-IP1 and NFC-IP2 protocols (ISO/IEC 18092 /ECMA 340 and ISO/IEC 21481/ECMA 352) 106 kbit/s to 424 kbit/s<br>•B’ and MIFARE card emulation | | | •Supports ISO/IEC 14443A Reader/Writer mode up to 848 kbit/s<br>•Supports ISO/IEC 14443B Reader/Writer mode up to 848 kbit/s<br>•Supports contactless communication according to the FeliCa protocol at 212 kbit/s and 424 kbit/s<br>•Supports MIFARE encryption<br>•Typical operating distance in Read/Write mode for communication to ISO/IEC 14443A/MIFARE, ISO/IEC 14443B or FeliCa cards up to 50 mm depending on antenna size and tuning | | •ISO14443A/B 106kbps/212 kbps/424 kbps/848 kbps<br>•ISO15693<br>•ISO18000-3<br>•Tag-itTM<br>•HF-EPC | •ISO/IEC 14443A/MIFARE Reader/Writer<br>•FeliCa Reader/Writer<br>•ISO/IEC 14443B Reader/Writer<br>•ISO/IEC 14443A/MIFARE Card MIFARE 1 KB or MIFARE 4 KB emulation<br>•FeliCa Card emulation<br>•ISO/IEC 18092, ECMA 340 Peer-to-Peer |

| | MODAT-328 | MODAT-335 | MODAT-335A | MODAT-530 |
|---|---|---|---|---|
| Size | 2.8” | 3.5” | 3.5” | 5.3” |
| Protocols supported | •ISO/IEC 14443A, ISO/IEC 14443B PCD 106 kbit/s to 848 kbit/s<br>•MIFARE reader encryption mechanism (MIFARE 1K/4K)<br>•Reading NFC Forum tags (MIFARE Ultralight, Jewel, FeliCa open tag, ISO/IEC 14443-4)<br>•Reading DESFire card<br>•ISO/IEC 15693/ICODE reader<br>•NFC-IP1 and NFC-IP2 protocols (ISO/IEC 18092 /ECMA 340 and ISO/IEC 21481/ECMA 352) 106 kbit/s to 424 kbit/s | | | •Reader Features (106k-848Kbits/s)<br>-Support ISO 15693<br>-Support ISO14443A<br>-Support NFC Forum Type 1-4 Tag<br>•Card Emulation Mode (106K-848Kbits/s) (optional)<br>-Support ISO 14443A<br>-Support NFC Forum Type 1-4 Tag<br>-Support Mifare via CLT<br>•Near Field Communication (106K-424Kbits/s)<br>-Peer to Peer Active/Passive mode<br>-ISO 18092 compliant |

# UHF RFID Supported Models

Dedicated to the AIDC technology, IEIMobile now offers a range of products with the UHF RFID reader solution. In order to ensure the quality performance of our UHF RFID readers, a series of tests were performed during the Design Quality Validation stage of product development.

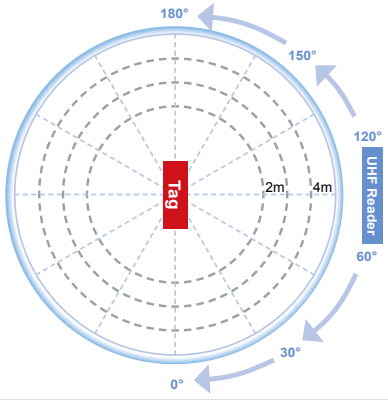
| | | MODAT-335 | ICECARE-05 | ICELOG | AVL-3000 |
|---|---|---|---|---|---|
| Characteristics | Frequency (MHz) | 840 ~ 960 | 840 ~ 960 | 840 ~ 960 | 840 ~ 960 |
| | Maximum Power Output (dBm) | 30 | 20 | 20 | 30 |
| | Antenna (Circular/Linear) polarization | Linear | Circular | Circular | Circular |
| | Tag Support | EPC C1 Gen2 / ISO 18000-6C, ISO 18000-6B | | | |
| Test Items | Maximum Reading Distance (m) | 5 | <1 | <1 | >12 |
| | Maximum Reading Speed (tags/sec) | 30 | 10 | 10 | 14 |

## ■ Reading Distance Test

In the reading distance test, a tag is located at the center of the room while the UHF RFID reader is located at different distances and angles from the tag. The tag is read at different distances until it cannot be detected anymore.

## ■ Reading Speed Test

In the reading speed test, the UHF RFID device is placed in front of a wall (4m x 2m) covered with UHF RFID tags that are located in both horizontal and vertical directions. The number of tags read in one minute is recorded to calculate the overall reading speed.



# Tag

## ■ Ultra High Frequency (UHF) RFID Tags

IEI provides the design and business case for ODM tag projects. That includes comprehensive passive Ultra High Frequency (UHF) RFID tags which are specially designed to operated and store under a wide range of temperatures. With an outstanding read distance and reading multiple items indentification, the ultra high frequency RFID tag provides a cost-effective solution for applications such as anti-counterfeiting and stock identification on high value products (wine, jewelry).

| | UHF Ear Tag | UHF Tag | UHF Jewelry Tag | UHF (Heat-resistant) Tag |
|---|---|---|---|---|
| Frequency | 860 to 960MHz | 860 to 960MHz | 860-960 MHz | 860-960 MHz |
| RF Air protocol | EPC Class1 Gen2 ISO18000-6C | EPC Class1 Gen2 ISO18000-6C | EPC Class1 Gen2 | EPC Class1 Gen2 |
| Functionality | Read/write | Read/write | Read/write | Read/write |
| Operating mode | Passive | Passive | Passive | Passive |
| Read distance | Up to 3 m (read dependent) | 8 m | 0.3 m | 1 m |
| Applications | Animal management | Retail management, asset tracking, inventory control | Asset tracking, security management | Warehouse and retail management, asset tracking, inventory control |
| Storage temperature | -10°C to 50°C | -40°C to 85°C | -20°C to 65°C (Non-condensing) | -40°C to 85°C (120 Short-term) |
| Dimensions | 50 mm × 30 mm | 95 mmx8 m | 72 mm × 34 mm | 64 mm × 7 mm |

## ■ HF RFID Sensor Tags plus Datalogger

IEI provides various RFID sensor tags plus datalogger for long-term temperature, humidity, vibration, ambient light and GPS recordings. The RFID tags can use an SD card as a mass storage media which can store 134 million points and are targeted at frozen food environment monitoring, humidity monitoring and transportation GPS tracking applications.

| Model Number | RFID-TP-D-ST-R10 | RFID-VB-D-ST-R10 | RFID-AL-D-ST-R10 | RFID-HT-D-ST-R10 | RFID-GPS-D-ST-R10 | RFID-STP-D-ST-R10 | RFID-TP-N-ST-R10 |
|---|---|---|---|---|---|---|---|
| Function | Temperature sensor Tag | Vibration sensor Tag | Ambient Light sensor Tag | Humidity and Temperature sensor Tag | GPS | Slim RFID Temperature Sensor plus DataLogger | RFID Temperature Sensor Tag |
| Accuracy | 0.5°C~1.0°C | ±3.9mg | ±4 LUX | Relative humidity ±2% Temperature ±0.2°C | <3m | 0.5°C~1.0°C | 0.5°C~1.0°C |
| Max Storage | 134,217,724 points | 134,217,724 points | 134,217,724 points | 134,217,724 points | 67,108,862 points | 3423 points | 1 point |
| Time Stamp | Yes | Yes | Yes | Yes | Yes | Yes | NO |
| FRID Frequency | 13.56MHZ | | | | | | |
| RF Air Protocol | ISO 15693 | | | | | | |
| PC Interface | USB 2.0 mass storage device | | | | | | N/A |
| Applications | Forzen food environment monitor | Transportation quality Machine abnormality | Environment monitor | Environment monitor | Transportation tracking | Forzen food Environment Monitor | Forzen food Environment Monitor |

# 1D/2D Barcode Capability

## ■ Mobile Barcode Reading

The embedded Honeywell or Motorola scan engines, which are decoded miniature area imaging scan engine designed to scan 1D and 2D barcodes, feature a megapixel imaging sensor, a wide angle lens design, the integration of illumination and aiming function, and an industrial leading decoding software to deliver fast and aggressive scanning performance.

- Accurately decodes all 1D and 2D codes, even wrinkled, damaged or poorly printed
- Large scanning area
- Fast scan rate

| Technology | 1D Barcode | 2D Barcode |
|---|---|---|
| Reading Condition | 20 to 25 characters | 100 to about 2,000 characters |
| Symbologies | EAN/UPC, RSS, Code 39, Code 128, UCC/EAN 128, ISBN, ISBT, Interleaved, Matrix, Industrial and Standard 2 of 5, Codabar, Code 93/93i, Code 11, MSI, Plessey, Telepen, postal codes. | Data Matrix, PDF417, Micro PDF 417, Maxicode, QR, Aztec, EAN.UCC composite |

MODAT-531 ICECARE-10W

## ■ Fast Barcode Scanning

The ITDB-100L is able to provide high-speed decoding and robust decoding for common distortion. It is suitable for industrial purposes such as the high-speed production line.

- Reads all barcodes with speed and accuracy
- Wide decoding range
- ESD safe design
- Supports remote monitoring and control via Android PDA and tablet PC

| Supported 1D Symbologies | Supported 2D Symbologies |
|---|---|
| Code 39, code 93, interleaved 2 of 5, UPC/EAN (ISBN, UPCA, UPCE, EAN13, EAN8) EAN 128, code 128, MSI, codabar | PDF-417, Micro PDF-417, QR Code/microQR Code, Data Matrix |

Damaged

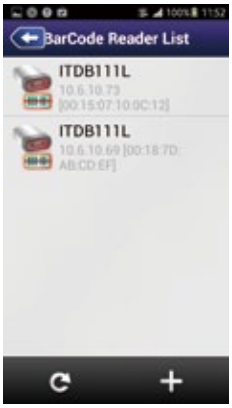
Non linear distortion

Overburned

Low contrast

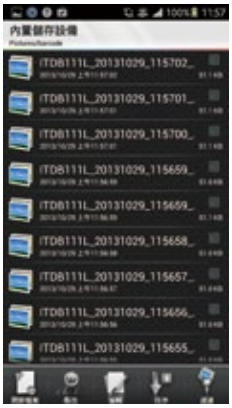
# IEI Barcode Solution

IEI barcode quick-setup solution allows you to easily and quickly setup your ITDB series barcode reader through an Android phone or tablet that has IEI barcode reader APK installed.

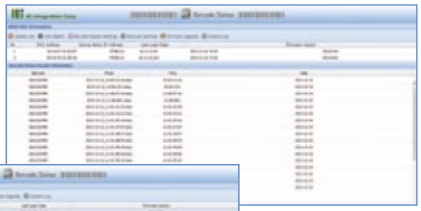


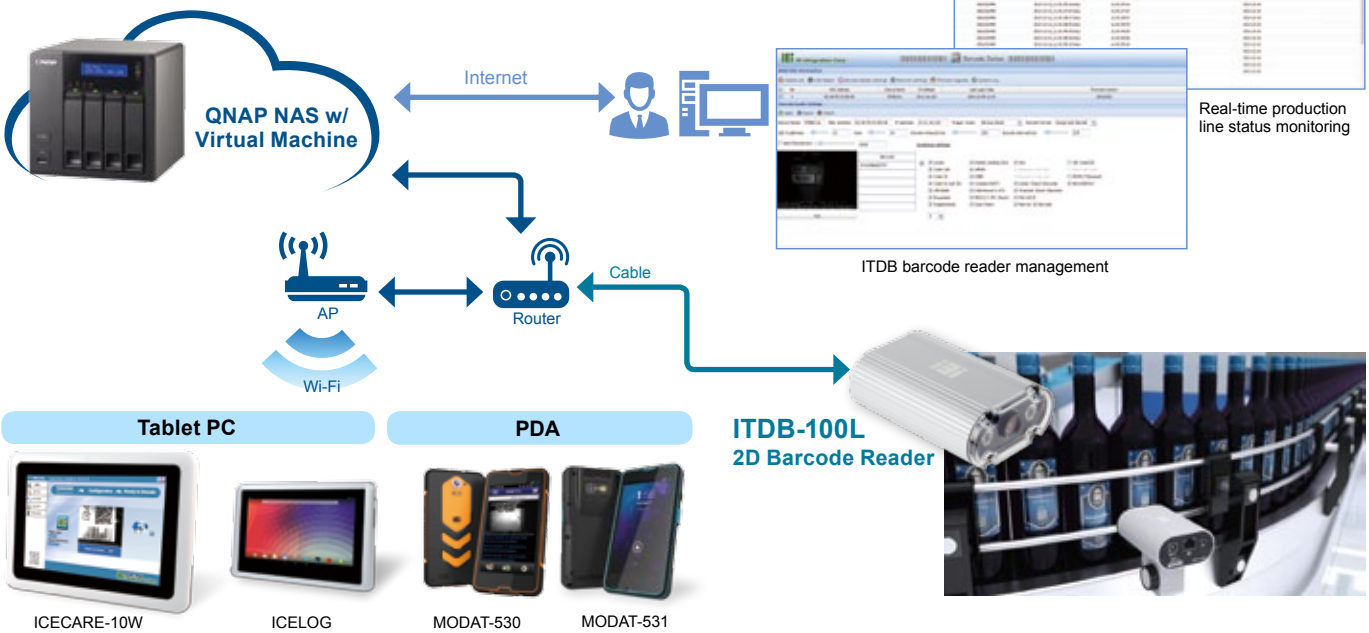
Select an ITDB device

Quickly setup & ready to decode


Can't decode? Report IEI with the saved image

IEI barcode solution allows you to manage your production lines installed with ITDB series barcode reader with QNAP NAS systems. With the TCP interface supported by the ITDB series, the information can be instantly transmitted to the NAS system making real-time production line monitoring more efficient.

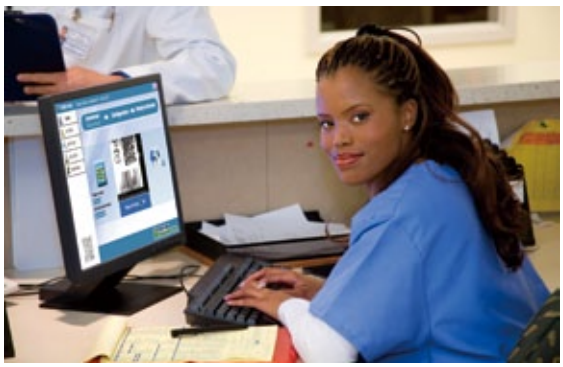

Real-time production line status monitoring



ITDB barcode reader management

IEI offers a barcode verifier software for Windows systems which is used to guarantee that the barcodes you print are 100% compliant to the ITDB barcode reader. Verification is akin to insurance: you hope you'll never need it but it's risky to function without it.

Barcode reader configuration



Barcode verification

# Our Dedicated Product Lines

## Tablet PC

### ICE Series -
### Your cutting-edge digital assistant

With a focus on ergonomic design and features, the ICE series tablet PC offers versatility in application and field-proven durability.

The ICE Series tablet PC features exceptional ergonomics, industrial sealing and high drop resistance for withstanding the most extreme industry-specific environment. Our obsessive attention to detail and passion for quality create a winning formula that promises to delight and inspire your staff on-the-go. It is the ultimate productivity tool for field services.

## Industrial PDA (EDA)

### MODAT Series -
### Your data manager on the go

The Modat series industrial PDA (EDA) brings real-time mobile computing and cost-effective mobility in one customizable, robust package.

The next generation of industrial PDA (EDA), the Modat Series, provides a total wireless solution with Windows® Embedded Handheld or Android operating system. The Modat Series industrial PDA features a full range of wireless communication options and optimal suites of data capture technologies in one lightweight, versatile and robust package. It is specially suited to solutions in the retail, hospitality and logistics environment.

## Automotive PC

### Automotive PC Series -
### Your reliable companion on the road

Raising the bar for premier in-vehicle infotainment systems, the automotive PC series optimizes user comfort and the power of sophisticated navigation technologies for your mobile work fleet.

The automotive PC series is a CAN-bus integrated mobile computing device that promises to answer all your field force automation needs. Empowered by the latest and most advanced navigation technologies available, your fleet operation is secured and optimized at minimal cost.

## RISC Based PC

### IOVU Series -
### Your smart daily task manager

The IOVU RISC Based PC Series enables the great embedded flexibility for smart living and building automation applications.

Making use of the low power consumption RISC platform, the IOVU series adopts a fan-less and power efficient design, providing a cost-effective, stable, and easy to use solution to collect, transfer, process, access , and manage data.

# Tablet PC Matrix

| Model | | ICEROCK3 | ICECARE-07 | ICECARE-05 | ICECARE-10W | ICECARE-10C |
|---|---|---|---|---|---|---|
| Display | LCD size | 10.1 TFT LCD | 7 TFT LCD | 5 TFT LCD | 10.1 TFT LCD | 10.1" IPS |
| | Brightness (cd/m²) | 350 cd/m² | 500 cd/m² | 350 cd/m² | 250 cd/m² | 350 cd/m² |
| | Max Resolution | 1280 x 800 IPS | 1024 x 600 | 800 x 480 | 1280 x 800 | 1280 x 800 |
| | Viewing Angle | 85/85/85/80 Deg | 75/75/70/75 Deg. | 70/70/50/70 Deg. | 75/75/75/70 Deg | N/A |
| | Touch Screen | 5-point capacitive, Gorilla glass | Projected capacitive touch | Projected capacitive touch | Capacitive touch | Capacitive touch |
| System | CPU | Intel® Atom N2600 Intel® Celeron 1007U 1.5GHz CPU Intel® Core I7-3517U 1.9GHz CPU | TI Sitara AM3715 1GHz | TI Sitara AM3715 1 GHz | Intel® Atom™ N2600 1.6GHz Intel® Celeron® 1007U 1.5GHz Intel® Core™ i7-3517U 1.9GHz | Intel® Celeron® processor N2920 |
| | Chipset | Intel® HM-10 Intel® HM-76 | N/A | N/A | Intel® HM-10 Intel® HM-76 | Intel® Gen7 Graphics |
| | Operating System | Windows® Embedded Standard 7 Optional Windows® 8 operating system for Ivy Bridge platform | Android 4.1.2 | Android 4.1.2 | Windows® Embedded Standard 7 Optional Windows® 8 operating system for Ivy Bridge platform | Microsoft® Windows® 8.1 |
| | Memory | N2600: 2GB DDR3 1007U, i7-3517U: 4GB DDR3 | 4GB eMMC Flash + 512MB SDRAM | 4GB eMMC Flash + 512MB SDRAM | N2600: 2GB DDR3 1007U: 4GB DDR3 i7-3517U: 8GB DDR3 | 4GB DDR3L |
| | Storage | 32GB built-in mSATA MLC | SD slot | microSD card slot | 32GB built-in mSATA MLC | 64GB NGFF SSD |
| Communication | Wi-Fi | Wi-Fi 802.11b/g/n | Wi-Fi 802.11 a/b/g/n | Wi-fi 802.11 a/b/g/n | Wi-Fi 802.11b/g/n | Wi-Fi 802.11 b/g/n |
| | Bluetooth | Bluetooth v3.0 | Bluetooth v4.0 | Bluetooth v4.0 | Bluetooth v3.0 | Bluetooth v4.0 |
| | Modem | WCDMA/HSUPA | UMTS/HSPA+ support 900/2100MHz & GSM/GPRS/ EDGE support 900/1800MHz | N/A | WCDMA/HSUPA | WCDMA |
| | GPS | GPS with internal antenna (optional) | GPS with internal antenna | N/A | N/A | N/A |
| Data Collection | Camera | 5-megapixel CMOS camera (rear) 1.3-megapixel CMOS Camera(front) | 5-megapixel CMOS camera with flash LED (rear)/ 2-megapixelCMOS camera(front) | 5-megapixel CMOS camera with flash LED | N/A | 2-megapixel camera (front) 5-megapixel camera with AF (rear) |
| | Light Sensor | N/A | N/A | N/A | N/A | N/A |
| | Barcode | 1D Laser/2D Imager Scan Engine (optional) | 1D Laser/2D Imager Scan Engine | N/A | 1D Laser/2D Imager Scan Engine (optional) | N/A |
| | RFID | 13.56MHz RFID supports ISO 14443A (Mifare) ISO 14443B (Felica) (optional) | 13.56 MHz RFID supports ISO/ IEC 14443A / 15693 / MIFARE / FELICA | 13.56 MHz RFID supports ISO 14443A & 15693 & MIFARE / FELICA compliant (option) | 13.56MHz RFID supports ISO 14443A (Mifare) ISO 14443B (Felica) (optional) | N/A |
| Indicators & Buttons | LED Indicators | Power / Charging Status / Bluetooth / Wi-Fi/ HDD/ 3.75G status LED | Power / Charging Status / Bluetooth / Wi-Fi/ 3.75G status LED | Power / Charging status LED | Power / Charging Status / Bluetooth / Wi-Fi/ HDD status LED | Power indicator |
| | Hot Keys | 1 x Power Button 1 x IEI menu 3 x Function key | Power on/off switch Reset key | Power on/off switch Reset key 4 x Function key (Home/ Menu/Back/Search) | 1 x Power Button 1 x IEI menu | Power on/off Windows key Volume up/down (rotation) |
| I/O Interface | USB | 3 x USB 3.0 1 x SIM card slot | 1 x USB 2.0 host 1 x Mini USB 2.0 client | 1 x Micro USB Client | 2 x USB 2.0 | 1 x USB 3.0 |
| | Micro HDMI | Micro HDMI x1 | N/A | N/A | micro HDMI x1 | 1 x mini HDMI |
| | Audio | 1 x Speaker (built-in) 1 X Built-in mic 1 X Headphone | 1 x Headset 1 x 1.5W speaker 1 x Built-in digital mic | 1 x 0.5W speaker | 1 x Speaker (built in) 1 x Headphone | 2 x 0.8 W speaker 1 x Headphone jack |
| | Expansion | 1xSD card (internal) | 1 x DC Jack | N/A | 1 x SD card (internal) | 1 x micro SD card slot 1 x Docking port |
| Power | Power Adapter | Input AC: 100~240V Output DC: 19V / 3A | 19V / 2.1A / 40W | 5V / 2.6A / 13W | Input AC: 100~240V Output DC: 19V / 2.1A | 12V / 3A |
| | Battery | 11.1V 3500mAH, 38.85WH, non-removable 11.1V 3500mAH, 38.85WH, hot-swappable | Dual 11.1V 1880mAh Li-ion battery | 3.7V 4130mAh Li-Polymer battery | 14.8V 3500mAh, 51.8WH, non-removable | Li-Polymer, 7.4V / 4500mAh |
| Environment | Operating Temperature | 0˚C~40˚C | -10˚C~40˚C | -10˚C~50˚C | 0˚C~40˚C | 0˚C~40˚C |
| | Storage Temperature | -20˚C~60˚C | -20˚C~60˚C | -20˚C~60˚C | -20˚C~60˚C | -20˚C~60˚C |
| | Humidity | 5%~95% non-condensing | 5%~95% non-condensing | 5%~95% non-condensing | 5%~95% non-condensing | 5%~95% non-condensing |
| | Drop Survival | 1.2 m | 1.2 m | 1.2 m | 1.2 m, need to add optional accessory protected cover | N/A |
| | Environmental Protection | IP 64 front panel, IP 65 back side | IP 64 | IP 64 | IP 54 compliant front panel | N/A |
| | Cerification | CE / FCC Class B / FCC ID / Rohs compliant | CE / FCC | CE / FCC | CE / FCC Class B / FCC ID / Rohs compliant | CE/FCC |
| Physical Characteristics | Dimensions (W x H x D) (mm) | 292.6 x 230 x 25.8 | 248 x 152.7 x 36.2 | 139 x 99.3 x 22.75 | 290 x 206.5 x 22.5 | 258 x 172.8 x 9.8 |
| | Weight | 1.9 kg | 1.1 kg | 0.3 kg | 1.2 kg | 0.6 kg |

# Tablet PC Matrix

| Model | | ICELOG | ICEFIRE | ICEFIRE2 | ICEROCK |
|---|---|---|---|---|---|
| Display | LCD size | 7 TFT LCD | 10.4 TFT LCD | 10.4 TFT LCD | 8.0 TFT LCD |
| | Brightness (cd/m²) | 200 cd/m² | 350 cd/m² | 350 cd/m² | 350 cd/m² |
| | Max Resolution | 1024 x 600 pixels WSVGA | 1024 x 768 pixels XGA | 1024 x 768 pixels XGA | 800 x 600 pixels SVGA |
| | Viewing Angle | 170° / 170° | 88/88/88/88 Deg. | 88/88/88/88 Deg. | 70/70/60/70 Deg. |
| | Touch Screen | Projected capacitive touch | Resistive supports multi-touch and gesture | Capacitive touch | 5-wire resistive type touch |
| | Digitizer | N/A | 2048 levels @ full scale Pressure Resolution | 2048 levels @ full scale Pressure Resolution | N/A |
| System | CPU | Freescale™ i.MX6 | Intel® Atom™ D525 1.8GHz | Intel® Atom™ N2800 1.86GHz | Intel® Atom™ Z530 1.6GHZ |
| | Chipset | N/A | Intel® ICH8M | Intel® NM10 | Intel® SCH US15WP |
| | Operating System | Android 4.2 | Microsoft® Windows Embedded Standard 7 P(WS7P) | Microsoft® Windows Embedded Standard 7 P(WS7P) | Microsoft® Windows XP Embedded |
| | Memory | DDR3 1GB | 2GB 1333MHz DDR3 SDRAM | 4GB 1333MHz DDR3 | 2GB DDR2 on board |
| | Storage | iNAND 8 GB<br>microSD card slot | 1.8 32G SSD | mSATA 8G SLC | CompactFlash® slot, SD card slot |
| Communication | Wi-Fi | Wi-Fi 802.11a/b/g/n | Wi-Fi 802.11a/b/g/n | Wi-Fi 802.11b/g/n | Wi-Fi 802.11b/g/n |
| | Bluetooth | Bluetooth v4.0 | Bluetooth v2.1 + EDR (Class II) | Bluetooth v3.0 + EDR (Class II) | Bluetooth v3.0 + HS (Class II) |
| | Modem | WCDMA/HSDPA (optional) | WCDMA/HSUPA (optional) | WCDMA/HSUPA (optional) | WCDMA/HSUPA (optional) |
| | GPS | GPS with internal antenna (optional) | N/A | Option | N/A |
| Data Collection | Camera | 5-megapixel with flash | 3-megapixel and LED light | N/A | 1.3-megapixel |
| | Light Sensor | N/A | N/A | N/A | Ambient Light Sensor |
| | Barcode | N/A | 1D Laser/2D Imager scan engine | 1D Laser/2D imager scan engine | 1D Laser/2D imager scan engine |
| | RFID | 13.56 MHz RFID support<br>ISO 14443A (Mifare)<br>ISO 14443B (Felica)<br>ISO 15693 | 13.56 MHz RFID support<br>ISO 14443A ( Mifare)<br>ISO 15693 | 13.56 MHz RFID support<br>ISO 14443A ( Mifare)<br>ISO 15693 | 13.56 MHz RFID support<br>ISO 14443A (Mifare)<br>ISO 15693 |
| Indicators & Buttons | LED Indicators | N/A | Power/ Wi-Fi/Bluetooth/ RFID/ Battery Status LED | Power/ Wi-Fi/Bluetooth/ RFID/ Battery Status LED | Power/ Wi-Fi/Bluetooth/HDD/ 3.75G Status LED |
| | Hot Keys | Power on/off<br>Volume Up/Down | 5-way navigation key<br>Barcode Scanner/ RFID / LED Torch/ Camera/ Wi-Fi/ Bluetooth/ SAS/Function Key | 5-way navigation key<br>Barcode Scanner/ RFID / LED Torch/ Camera/ Wi-Fi/ Bluetooth/ SAS/Function Key | 5-way navigation key<br>8 x Programmable function keys |
| I/O Interface | USB | 1 x Micro USB Client | 1 x USB 2.0 Full Speed | 1 x USB 3.0 | 2 x USB 2.0 Full Speed<br>1 x Mini USB |
| | Micro HDMI | N/A | N/A | N/A | N/A |
| | Audio | 2 x 1W Speaker<br>1 x Headphone | 1 x 2W Speaker<br>1 x Mic in | 1 x 2W Speaker | 2 x 1.5W Speaker<br>1 X Mic<br>1 x Headphone |
| | Expansion | N/A | 1 x LED Torch | 1 x LED Torch | N/A |
| Power | Power Adapter | 5V @ 2A @ 10W | 12V @ 5A @ 60W | 12V @ 5A @ 60W | 12V @ 3A @ 36W |
| | Battery | 3.7V 7400mAh | Dual 11.1V 1880mAh Li-ion Battery | Dual 11.1V 1880mAh Li-ion Battery | 7.4V 2400 mAh Li-ion Battery |
| | Docking power adapter | N/A | N/A | N/A | N/A |
| Environment | Operating Temperature | 0˚C~40˚C | 0˚C ~ 40˚C | 0˚C ~ 40˚C | 0˚C~40˚C |
| | Storage Temperature | -20˚C~60˚C | -10˚C ~ 60˚C | -10˚C ~ 60˚C | -20˚C~60˚C |
| | Humidity | 5%~95% non-condensing | 5%~95% non-condensing | 5%~95% non-condensing | 5%~95% non-condensing |
| | Drop Survival | 0.9 m | 0.9 m | 0.9 m | 1.0 m |
| | Environmental Protection | IP 54 compliant front panel | IP 64 compliant front panel | IP 64 compliant front panel | IP 62 compliant front panel |
| | Cerification | CE / FCC | CE/FCC, Medical-grade Class B | CE/FCC | CE / FCC |
| Physical Characteristics | Dimensions (W x H x D) (mm) | 205 x 133 x 19 | 270 x 265 x 29 | 270 x 265 x 29 | 255 x 180 x 37 |
| | Weight | 0.58 kg | 1.7 kg | 1.7 kg | 1.1 kg |

# ICEROCK 3

## Ultra Tough Assistant

New

CORNING Gorilla Glass

### *Features*

- 10.1” 350 cd/m² TFT LCD with capacitive touch
- Intel® Core™ i7-3517U, Intel® Celeron® 1007U platform
- Powered by Windows® Embedded Standard 7 P
- Bluetooth, Wi-Fi, 3.75G wireless with GPS
- 1D/2D barcode reader, 13.56MHz RFID reader
- 1.3-megapixel CMOS front camera and 5-megapixel CMOS rear camera
- Optional built-in hot-swappable battery
- Optional Windows 8 operating system for Ivy Bridge platform

## *Specifications*

| Model | | ICEROCK3 |
|---|---|---|
| Display | LCD Size | 10.1” TFT LCD |
| | Brightness (cd/m²) | 350 |
| | Max. Resolution (HxV) | 1280 x 800 |
| | Viewing Angle | 85/85/85/85 Deg. |
| | Touch Screen | Projected capacitive type |
| System | CPU | Intel® Celeron® 1007U 1.5GHz |
| | Chipset | Intel® NM10 |
| | Operating System | Windows® Embedded Standard 7 P |
| | Memory | On-board 4 GB DDR3 |
| | Storage | 32GB MLC mSATA |
| Communication | Wireless LAN | Wi-Fi 802.11b/g/n |
| | Bluetooth | Bluetooth 3.0 |
| | Modem | UMTS/HSUPA Band 1, 2, 4, 5, 6, 8 |
| | GPS | GPS with internal antenna |
| Data Collection | RFID | 13.56MHz RFID supports ISO 14443A/B (Mifare, Felica) |
| | Barcode | 1D/2D imager scan engine |
| | Camera | 1.3-megapixel front camera<br>5-megapixel rear camera |
| Indicators & Buttons | Keys | 1 x Power button<br>2 x Hot keys<br>1 x iMenu |
| | LED Indicators | Battery charging/peripheral device/storage/wireless device |
| I/O Interface | Audio | 1 x Headphone<br>1 x Mic-in |
| | | 2 x 1 W speakers |
| | Expansions | 3 x USB 3.0<br>1 x SIM card slot<br>1 x Micro HDMI |
| Power | Power Adapter | Input AC: 100~240V<br>Output DC: 19V / 3A |
| | Battery | 40 W standard battery pack (5 working hours)<br>40 W optional battery pack (5 working hours) |
| Environment | Operating Temperature | 0°C~40°C |
| | Storage Temperature | -20°C~60°C |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | 1.2M |
| | Environmental Protection | Front panel :IP64<br>Back side: IP65 |
| | Certifications | CE / FCC |
| Physical | Dimensions (LxWxH) (mm) | 297 x 234 x 32 |
| | Weight | 1.9 kg |

## Model Variations

| Part No. | CPU | Touch | IPS | RAM | Wireless | Bluetooth | Barcode | RFID | 3.75G | GPS | 5M Camera | 2nd Battery |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ICEROCK3-T10-HU-R10 | Celeron 1007U | Capacitive touch | YES | 4GB | 802.11 b/g/n | Ver. 3.0 | Yes | Yes | Yes | Yes | Yes | Yes |
| ICEROCK3-T10-ETC-R10 | Celeron 1007U | Capacitive touch | YES | 4GB | 802.11 b/g/n | Ver. 3.0 | N/A | Yes | N/A | N/A | N/A | N/A |
| ICEROCK3-T10-HUI-R10 | I7-3517 | Capacitive touch | YES | 8GB | 802.11 b/g/n | Ver. 3.0 | Yes | Yes | Yes | Yes | Yes | Yes |

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Charging Bay | ICEROCK3-CR01-R10 | Independent charging bay for ICEROCK3 (with interlocking design) |
| Combo Reader | ICEROCK3-3IN1-R10 | Smart card reader, magnetic stripe reader, fingerprint reader Combo add-on module |
| Carrying Case | 7Z000-ICEROCK3-10POUCH | Protective bag with shoulder strap |

Combo Reader

Carrying Case

Charging Bay

## Ordering Information

| Part No. | Description |
|---|---|
| ICEROCK3-T10-HU-R10 | Intel® Celeron® 1007U 1.5GHz, Capacitive touch, IPS panel, 4GB RAM, 32G SSD, 802.11 b/g/n&BT, RFID, 1.3M/5M camera, GPS, Barcode Reader, RFID, 2nd battery, WS7P, RoHS |
| ICEROCK3-T10-ETC-R10 | Intel® Celeron 1007U 1.5GHz, Capacitive touch, IPS panel, 4GB RAM, 32G SSD, 802.11 b/g/n&BT, RFID, 1.3M camera, 2nd battery, WS7P, RoHS |
| ICEROCK3-T10-HUI-R10 | Intel® I7-3517 CPU, Capacitive touch, IPS panel, 8GB RAM, 32G SSD, 802.11 b/g/n&BT, 3.75G, RFID, 1.3M/5M camera, 2nd battery, GPS, barcode, WS7P, RoHS |

# ICECARE-07

## Mobile Field Assistant

### *Features*

- 7” 500 cd/m² TFT LCD with projective capacited touchscreen
- Texas Instruments Sitara™ ARM® Cortex™-A8 CPU
- Powered by Android 4.1.2 OS
- 1D laser / 2D imager scan engine, HF RFID reader
- Dual Camera :
  2-megapixel CMOS front camera
  5-megapixel CMOS rear camera
- Bluetooth, Wi-Fi, 3.75G wireless
- Built-in Ublox GPS with internal antenna
- Dual hot swappable battery

Cortex
Intelligent Processors by ARM

3.75G/HSUPA | Bluetooth | Wi-Fi | USB 2.0 | GPS | Camera | Touchscreen | IP64 | 1D Barcode Scanner | 2D Barcode Scanner | ANDROID

### *Specifications*

| Model | | ICECARE-07 |
|---|---|---|
| Display | LCD Size | 7” TFT LCD |
| | Brightness (cd/m²) | 500 cd/m² |
| | Max. Resolution | 1024 (H) x 600 (V) |
| | Viewing Angle | 60/70/70/70 Deg. |
| | Touch Screen | Projected capacitive type |
| System | CPU | TI Sitara™ AM3715 1GHz |
| | OS | Android 4.1.2 |
| | Memory | 4GB eMMC Flash + 512MB SDRAM |
| | Storage | SD Slot |
| Communication | Wireless LAN | Wi-Fi 802.11b/g/n |
| | Bluetooth | Bluetooth 4.0 |
| | Modem | HSUPA/GPRS/GSM |
| | GPS | UMTS 900/2100 MHz & GSM 900/1800 MHz |
| | RFID | HF RFID<br>ISO 14443A (Mifare)<br>ISO 18092 (Felica)<br>ISO 15693<br>NFC |
| Data Collection | Barcode | 1D laser/2D imager scan engine |
| | Camera (Back) | 5-megapixel CMOS camera |
| | Camera (Front) | 2-megapixel CMOS camera |
| Indicators & Buttons | LED Indicators | Power On LED (Blue) |
| | | Wi-Fi enable / disable LED (Green) |
| | | BT enable / disable LED (Blue) |
| | | 3.5G enable / disable LED (Green) |
| | Keys | Power on/off switch |
| | | Reset Key |
| | | 4 x Function key<br>(Home / Menu / Back / Search) |
| I/O Interface | Audio | 1 x Headset<br>1 x 1.5W speaker<br>1 x Digital Mic |
| | Expansion | 2 x USB 2.0 |
| | | 1 x DC Jack |
| Power | Power Adapter | 19V @ 2.1A @ 40W |
| | Battery | Dual 11.1V 1880mAh Li-ion battery |
| Environment | Operating Temperature | -10°C ~ 40°C |
| | Storage Temperature | -10°C ~ 60°C |
| | Humidity | 5%~95% non-condensing |
| | Drop Survival | 1.2 M |
| | Environment Protection | IP 64 |
| | Certification | CE / FCC |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 248 x 153 x 36 |
| | Weight | 1.1 kg |

## Model Variations

| Part No. | WiFi | Bluetooth | Modem | GPS | Barcode | RFID |
|---|---|---|---|---|---|---|
| ICECARE-07-E-R11 | 802.11b/g/n | Ver. 4.0 | HSUPA/GPRS/GSM | GPS | 1D/2D | HF RFID |
| ICECARE-07-1D-R11 | 802.11b/g/n | Ver. 4.0 | N/A | N/A | 1D | N/A |

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Office Docking | ICECARE-07-CR01-R10 | ICECARE-07 charging cradle integrated charging bay and support USB HOST, Ethernet 10/100M and RS-232 IO port |
| Vehicle charger | 63072-290040-000-RS | DC/DC Module;Powertron;PD1040-190CAB210;PD1040-190CAB210-838-V0;;Vin:10.5~28VDC;40W;;Plug=10mm;Cable=1000mm;DC |
| Vehicle Mount | ICECARE-07-MK01-R10 | ICECARE-07 Mount Kit |

## Ordering Information

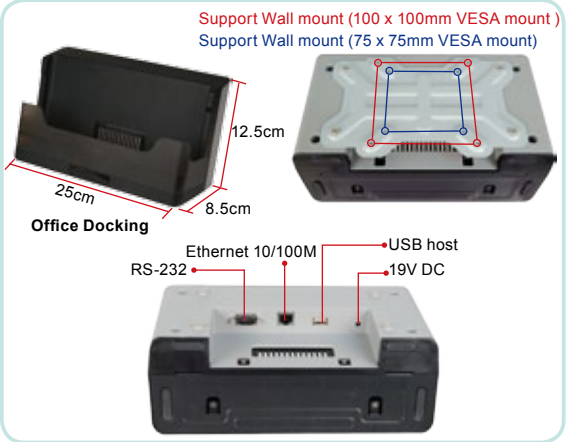
| Part No. | Description |
|---|---|
| ICECARE-07-E-R11 | 7" 1024x600 TFT-LCD industrial tablet with TI Sitara AM3715 CPU, UMTS 900/2100MHz & GSM 900/1800MHz, WiFi/Bluetooth, GPS, RFID, 2D/1D barcode, 2M/5M Camera, Android 4.1 OS, RoHS |
| ICECARE-07-1D-R11 | 7" 1024x600 TFT-LCD industrial tablet with TI Sitara AM3715 CPU, WiFi/Bluetooth, 1D barcode, 2M/5M Camera, Android 4.1 OS, RoHS |

## Packing List

| Item | Part No. | Q'ty |
|---|---|---|
| Battery Pack | 31603-000016-RS | 2 |
| Power Adapter | 63040-290040-000-RS | 1 |
| X type hand Strap | 47005-003900-00-RS | 1 |
| Strap | 46035-000400-RS | 1 |

Vehicle charger

Vehicle Mount



**Drop Survival**
Protection against accidental drops.

**IP Grade**
Protection against dust and water splash.

**Operating Temperature**
Protection against extreme temperatures.

# ICECARE-05

## Pocket Mobile Field Assistant

### *Features*

- 5” 350 cd/m² TFT LCD with projected capacitive touchscreen
- Texas Instruments Sitara™ ARM® Cortex™-A8 CPU
- Powered by Android 4.1.2 OS
- Bluetooth and Wi-Fi
- 5-megapixel CMOS camera
- Optional HF / UHF RFID reader

### *Specifications*

| Model | | ICECARE-05 |
|---|---|---|
| Display | LCD Size | 5” TFT LCD |
| | Brightness (cd/m²) | 350 |
| | Max. Resolution | 800 (H) x 480 (V) |
| | Viewing Angle | 70/70/50/70 Deg. |
| | Touch Screen | Projected capacitive type |
| System | CPU | TI Sitara™ AM3715 1GHz |
| | Operating System | Android 4.1.2 |
| | Memory | 4GB eMMC Flash + 512MB SDRAM |
| Communication | Wireless LAN | 802.11a/b/g/n |
| | Bluetooth | Bluetooth 4.0 |
| Data Collection | RFID | 13.56MHz RFID reader (optional)<br>UHF RFID reader (optional) |
| | Camera | 5-megapixel camera |
| Indicators & Keys | LED Indicators | Power on LED (Blue)/ Sleep (Red) |
| | | Charging LED (Orange)/ Full (Green) |
| | Keys | Power on / off switch |
| | | 4 x Function key (Home/Menu/Back/Search) |
| I/O Interface | Audio | 1 x Headset |
| | | 1 x 0.5W speaker |
| | Expansions | 1 x Micro USB Client |
| | | 1 x microSD (up to 32G) |
| Power | Power Adapter | 5V/2.1A/10.2W |
| | Battery | 3.7V 3600mAh |
| Environment | Operating Temperature | -10°C ~ 50°C |
| | Storage Temperature | -20°C ~ 60°C |
| | Humidity | 5%~95%, non-condensing |
| | IP Protection | IP 64 |
| | Drop Survival | 1.2m |
| Pysical Characteristics | Dimensions (LxWxH)(mm) | 139 x 99.3 x 22.8 |
| | Weight | 297g |

## Model Variations

| Part No. | Touch | Wireless | Bluetooth | 3.75G | GPS | HF RFID | UHF RFID |
|---|---|---|---|---|---|---|---|
| ICECARE-05-HF-R10 | Capacitive touch | 802.11a/b/g/n | Ver. 4.0 | N/A | N/A | Yes | N/A |
| ICECARE-05-ET-R10 | Capacitive touch | 802.11a/b/g/n | Ver. 4.0 | N/A | N/A | N/A | N/A |
| ICECARE-05-UHF-R10 | Capacitive touch | 802.11a/b/g/n | Ver. 4.0 | N/A | N/A | N/A | Yes |

## Packing List

| Item | Part No. | Q'ty |
|---|---|---|
| Adapter | 63040-330010-000-RS | 1 |
| Cable | 32001-014300-100-RS | 1 |
| Earphone | 30900-000003-RS | 1 |

## Ordering Information

| Part No. | Description |
|---|---|
| ICECARE-05-HF-R10 | 5" TFT-LCD tablet with TI Sitara™ AM3715 CPU, Wi-Fi/Bluetooth, HF RFID, 5-megapixel camera, Android 4.1.2 OS, RoHS |
| ICECARE-05-ET-R10 | 5" TFT-LCD tablet with TI Sitara™ AM3715 CPU, Wi-Fi/Bluetooth, 5-megapixel camera, Android 4.1.2 OS, RoHS |
| ICECARE-05-UHF-R10 | 5" TFT-LCD tablet with TI Sitara™ AM3715 CPU, Wi-Fi/Bluetooth, UHF RFID, 5-megapixel camera, Android 4.1.2 OS, RoHS |

# Optional Advanced RFID Technology

The RFID (Radio-Frequency Identification) technology utilizes frequencies ranging from 125KHz to 2.45GHz. The ICECARE-05 features an optional HF or UHF RFID reader.

### HF RFID Reader

The 13.56MHz RFID reader is suitable for item identification in warehouse.

### UHF RFID Reader

The optional UHF RFID reader, which operates within 840MHz to 960MHz, is excellent for multiple item identification and tracking applications.

- HF RFID: short reading distance, single item identification
- UHF RFID: long reading distance, multiple item identification

# ICECARE-10W

## Mobile Sales Assistant

New

### Features

- 10.1” TFT LCD with capacitive touch
- Intel® Core™ i7-3517U, Intel® Atom™ N2600 or Intel® Celeron® 1007U platform
- Powered by Windows® Embedded Standard 7
- Built-in Bluetooth and Wi-Fi
- Built-in smart card reader and magnetic stripe card reader
- 1D/2D barcode reader, 13.56MHz RFID reader
- Optional Windows® 8 operating system for Ivy Bridge platform

### Specifications

| Model | | ICECARE-10W |
|---|---|---|
| Display | LCD Size | 10.1” TFT LCD |
| | Brightness (cd/m²) | 250 |
| | Max. Resolution (HxV) | 1280 x 800 |
| | Viewing Angle | 75/75/75/70 |
| | Touch Screen | Capacitive type |
| System | CPU | Intel® Atom™ N2600 1.6GHz |
| | OS | Windows Embedded Standard 7 |
| | Memory | On-board 2GB DDR3 |
| | Storage | Built-in 32GB mSATA |
| Communication | Wireless LAN | 802.11b/g/n |
| | Bluetooth | Bluetooth v3.0 |
| Data Collection | Barcode | 1D/2D imager scan engine |
| | RFID | 13.56MHz RFID supports ISO 14443A/B (Mifare, Felica) |
| Indicators & Buttons | Keys | 1 x Power button<br>1 x IEI menu |
| | LED Indicators | Battery Charging/Peripheral Device/Storage/Wireless |
| I/O Interface | Audio | 1 x 1.5W Speaker |
| | USB | 2 x USB2.0 |
| | Audio | 1 x Audio/Mic-in |
| | Micro HDMI | 1 x Micro HDMI |
| | Expansions | Smart Card Reader |
| | | Magnetic Stripe Reader |
| Power | Power Adapter | Input AC: 100~240V<br>Output DC: 19V / 2.1A |
| | Battery | 7.4V 7400mAh |
| Environment | Operating Temperature | 0°C~40°C |
| | Storage Temperature | -20°C~60°C |
| | Humidity | 5%~95%, non-condensing |
| | Environmental Protection | IP 54 compliant front panel |
| | Certification | CE / FCC |
| Physical | Dimensions (LxWxH) (mm) | 290 x 206.5 x 22.5 |
| | Weight | 1.1 kg |

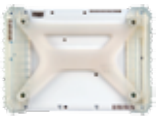
## Model Variations

| Part No. | Touch | IPS | RAM | Wireless | Bluetooth | MSR | SCR | Barcode | RFID |
|---|---|---|---|---|---|---|---|---|---|
| ICECARE-10W-R10 | Capacitive touch | NO | 2GB | 802.11 b/g/n | Ver. 3.0 | Yes | Yes | Yes | Yes |
| ICECARE-10W-ET-R10 | Capacitive touch | NO | 2GB | 802.11 b/g/n | Ver. 3.0 | N/A | N/A | N/A | Yes |
| ICECARE-10W-CE-R10 | Capacitive touch | NO | 4GB | 802.11 b/g/n | Ver. 3.0 | Yes | Yes | Yes | Yes |
| ICECARE-10W-CE-ET-R10 | Capacitive touch | NO | 4GB | 802.11 b/g/n | Ver. 3.0 | N/A | N/A | N/A | Yes |
| ICECARE-10W-I7-R10 | Capacitive touch | YES | 4GB | 802.11 b/g/n | Ver. 3.0 | Yes | Yes | Yes | Yes |
| ICECARE-10W-I7-ET-R10 | Capacitive touch | YES | 4GB | 802.15 b/g/n | Ver. 3.0 | N/A | N/A | N/A | Yes |

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Cradle | ICECARE-10W-CR01-R10 | ICECARE-10W charging cradle |
| Protect Rubber | ICECARE-10W-PR01-R10 | ICECARE-10W protect rubber |
| Carrying Case | 7Z000-ICECARE-10W-R10POUCH | Protective bag with shoulder strap |

Cradle

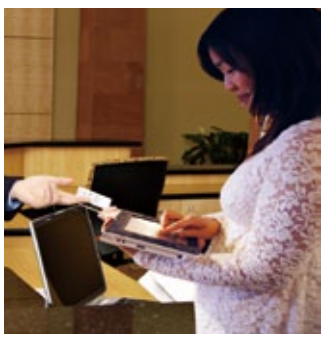

Protect Rubber

Carrying Case

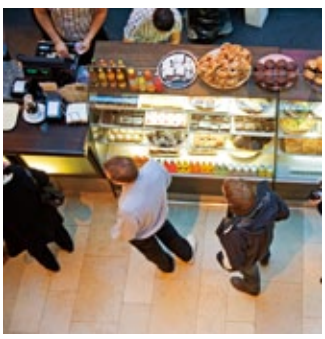
## Ordering Information

| Part No. | Description |
|---|---|
| ICECARE-10W-R10 | Intel® Atom™ N2600 1.6GHz CPU, Capacitive touch, Non-IPS panel, 2GB RAM, 32G SSD, 802.11 b/g/n&BT, 1D/2D Barcode, MSR, SCR, RFID, WS7P, RoHs |
| ICECARE-10W-ET-R10 | Intel® Atom™ N2600 1.6GHz CPU, Capacitive touch, Non-IPS panel, 2GB RAM, 32G SSD, 802.11 b/g/n&BT, RFID, WS7P, RoHs |
| ICECARE-10W-CE-R10 | Intel® Celeron 1007U 1.5GHz CPU, Capacitive touch, Non-IPS panel, 4GB RAM, 32G SSD, 802.11 b/g/n&BT, 1D/2D Barcode, MSR, SCR, RFID, WS7P, RoHs |
| ICECARE-10W-CE-ET-R10 | Intel® Celeron 1007U 1.5GHz CPU, Capacitive touch, Non-IPS panel, 4GB RAM, 32G SSD, 802.11 b/g/n&BT, RFID, WS7P, RoHs |
| ICECARE-10W-I7-R10 | Intel® Core I7-3517U 1.9GHz CPU, Capacitive touch, IPS panel, 4GB RAM, 32G SSD, 802.11 b/g/n&BT, 1D/2D Barcode, MSR, SCR, RFID, WS7P, RoHs |
| ICECARE-10W-I7-ET-R10 | Intel® Core I7-3517U 1.9GHz CPU, Capacitive touch, IPS panel, 4GB RAM, 32G SSD, 802.11 b/g/n&BT, RFID, WS7P, RoHs |

Retail Store Management


Hotel Registration System

Restaurant Table Order Management


Drive-through (Fast Food)

# ICECARE-10C

## Mobile Sales Assistant

New

### Features

- 10.1” TFT LCD with capacitive touch
- Intel® Bay Trail-M Celeron N2920 1.86GHz, Quad Core
- Powered by Windows® 8.1
- Built-in Bluetooth and Wi-Fi
- Build-in Front and optional rear camera
- Optional 3G module

## Specifications

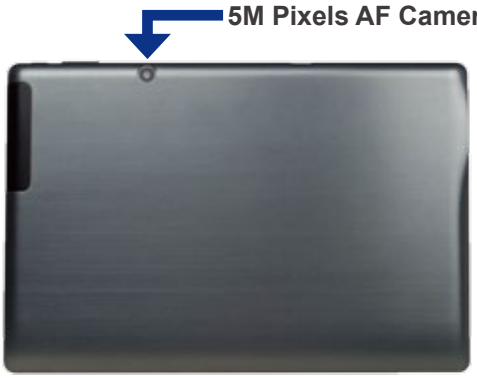
| Model | ICECARE-10C-R10 |
|---|---|
| OS | Windows 8.1 or Android 4.4 or Linux Ubuntu 10.04 |
| Processor | Intel Bay Trail-MCeleron N2920 1.86GHz, quad core |
| Graphic | Intel Gen7 Graphics |
| RAM | DDR3L 4GB |
| Storage | NGFF SSD 64GB |
| Display | 10.1 inch, 1280x800 |
| Touch Panel | Capacitive w/ 10 points multi touch |
| I/O Port | USB3.0 x 1, mini HDMI x 1, Audi Jack x 1, Micro SD Card Slot x 1, DC in x 1 |
| Audio | Realtek HD Audio |
| Speaker | Built-in speaker x 2 |
| Camera | Front: 2.0M with light sensor, Rear: 5.0M AF |
| 3G | Optional WCDMA |
| WiFI | IEEE802.11b/g/n |
| Bluetooth | BT4.0 |
| Battery | Li-Polymer, 7.4V / 4500mAh |
| Power | 12V/3A |
| Dimension | 258(L) x 172.8(W) x 9.8 (H) mm |
| Weight | 600g |
| Accessory | AC adapter & AC Cable |

## Optional Accessory List

| Item | Description |
|---|---|
| ICECARE-10C-KEYBOARD | Keyboard with leather pouch |
| ICECARE-10C-3G | WCDMA 3G module |

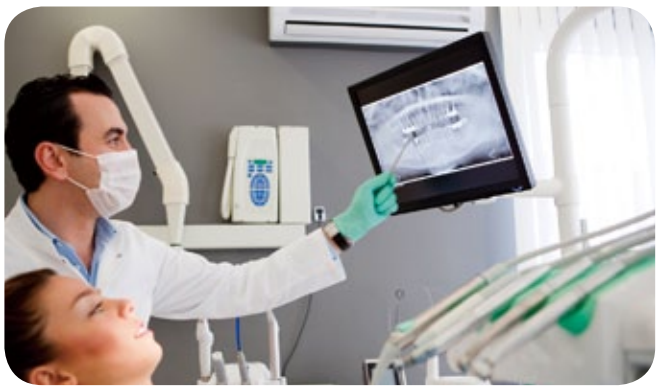
## Ordering Information

| Part No. | Description |
|---|---|
| ICECARE-10C-R10 | 10.1” 1280x800, Intel® Bay Trail-M Celeron N2920 1.86GHz, DDR3 4GB, NGFF SSD64GB, USB3.0, mini HDMI, Micro SD, Camera, 802.11b/g/n, BT4.0 |




# Applications

The ICECARE-10C is based on the new generation Bay Trail-M Celeron platform with Windows® 8.1 operating system. Featuring optional 3G function and integrated with a rage of wireless functions, this tablet PC allows easy and convenient transfer of information. This device is suitable for following application:


Hospitality Service

Customer Service

Market Inquiry

Education

# ICELOG

## Mobile Elite Manager

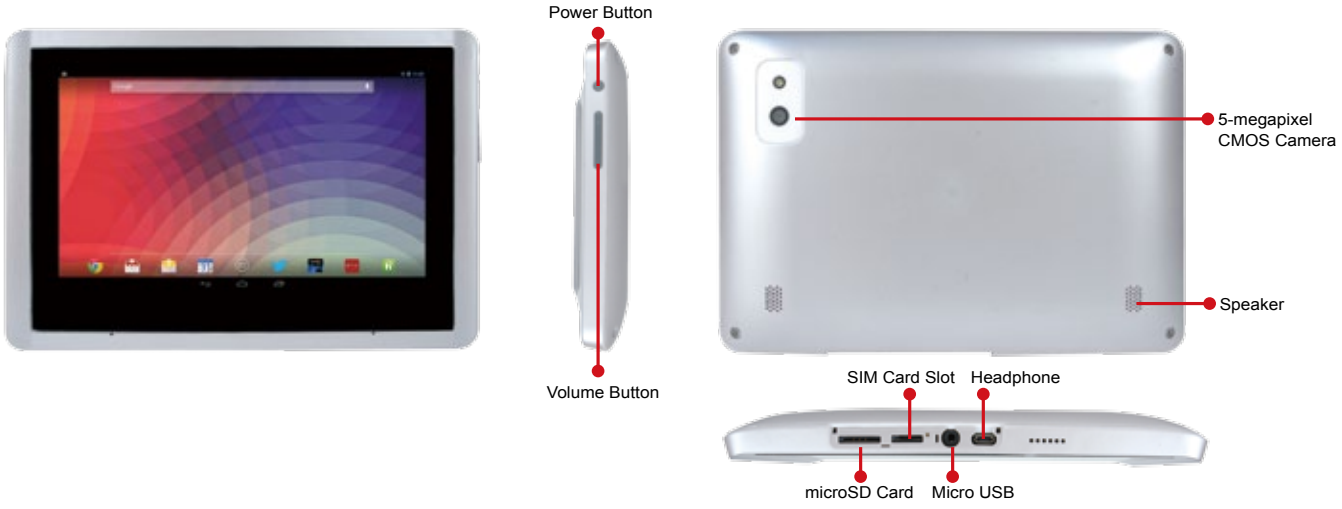
### Features

- 7” 200 cd/m² TFT LCD with capacitive touchscreen
- Freescale iMX6 Cortex A9 CPU
- Powered by Android 4.2 OS
- Bluetooth, Wi-Fi, and optional 3.5G with GPS
- 5-megapixel CMOS rear camera
- Optional NFC or UHF RFID Reader

3.75G/HSUPA | Bluetooth | Wi-Fi | GPS | Camera | Touchscreen | NFC

### Specifications

| Model | | ICELOG-07-A9 |
|---|---|---|
| Display | LCD Size | 7” TFT LCD |
| | Brightness (cd/m² ) | 200 cd/m² |
| | Max Resolution (HxV) | 1024 x 600 |
| | Viewing Angle | 170° / 170° |
| | Touch Screen | Projected capacitive type |
| System | CPU | Freescale™ i.MX6 |
| | OS | Android 4.2 |
| | Memory | DDR3 1GB |
| | Storage | iNAND 8 GB |
| Communication | Wireless LAN | Wi-Fi 802.11a/b/g/n |
| | Bluetooth | Bluetooth 4.0 |
| | 3G | WCDMA/HSDPA (optional) |
| | GPS | GPS with internal antenna (optional) |
| Data Collection | RFID | UHF RFID reader (optional) |
| | NFC | NFC (optional) |
| | Camera (Rear) | 5-megapixel with flash |
| Indicators & Buttons | Keys | Power on/off<br>Home<br>Back |
| I/O Interface | Audio | 1 x Headphone |
| | | 2 x 1 W speaker |
| | Expansion | 1 x SIM card slot |
| | | 1 x Micro USB OTG |
| | | 1 x microSD slot |
| Power | Power Adapter | 5V/13W |
| | Battery | 3.7V 7400mAh battery |
| Environment | Operating Temperature | 0°C~40°C |
| | Storage Temperature | -20°C~60°C |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | 0.9 M |
| | Environmental Protection | IP 54 (front panel only) |
| | Certification | CE / FCC |
| Physical | Dimensions (LxWxH) (mm) | 205 x 133 x 19 |
| | Weight | 0.58 kg |




## Model Variations

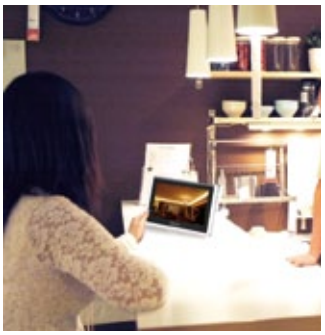
| Part No. | Touch | Wireless | Bluetooth | 3.75G | GPS | NFC |
|---|---|---|---|---|---|---|
| ICELOG-07-A9-HU-R10 | Capacitive touch | 802.11a/b/g/n | 4.0 | Yes | Yes | Yes |
| ICELOG-07-A9-ET-R10 | Capacitive touch | 802.11a/b/g/n | 4.0 | N/A | N/A | N/A |

## Packing List

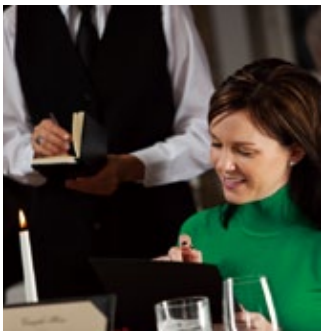
| Item | Part No. | Q'ty |
|---|---|---|
| Power Adapter | 63040-290013-000-RS | 1 |
| Micro USB Cable | 32001-014300-100-RS | 1 |

## Ordering Information

| Part No. | Description |
|---|---|
| ICELOG-07-A9-HU-R10 | 7.0" 200cd/m² XGA Androide Tablet with Freesca i.MX6 Quad core 1.0GHz,802.11 a/b/g/n Wireless Module,Bluetooth Module,GPS Module, 3G Module, Touch screen,5M pixel Camera,1GB DDR3,Android 4.2 OS,RFID,RoHS |
| ICELOG-07-A9-ET-R10 | 7.0" 200cd/m² XGA Androide Tablet with Freesca i.MX6 Quad core 1.0GHz,802.11 a/b/g/n Wireless Module,Bluetooth Module, Touch screen,5M pixel Camera,1GB DDR3,Android 4.2 OS,RoHS |


Home Automation

Enterprise Mobility


Order Management

Retail Store Management

# ICEFIRE

## 10.4” Mobile Clinic Assistant

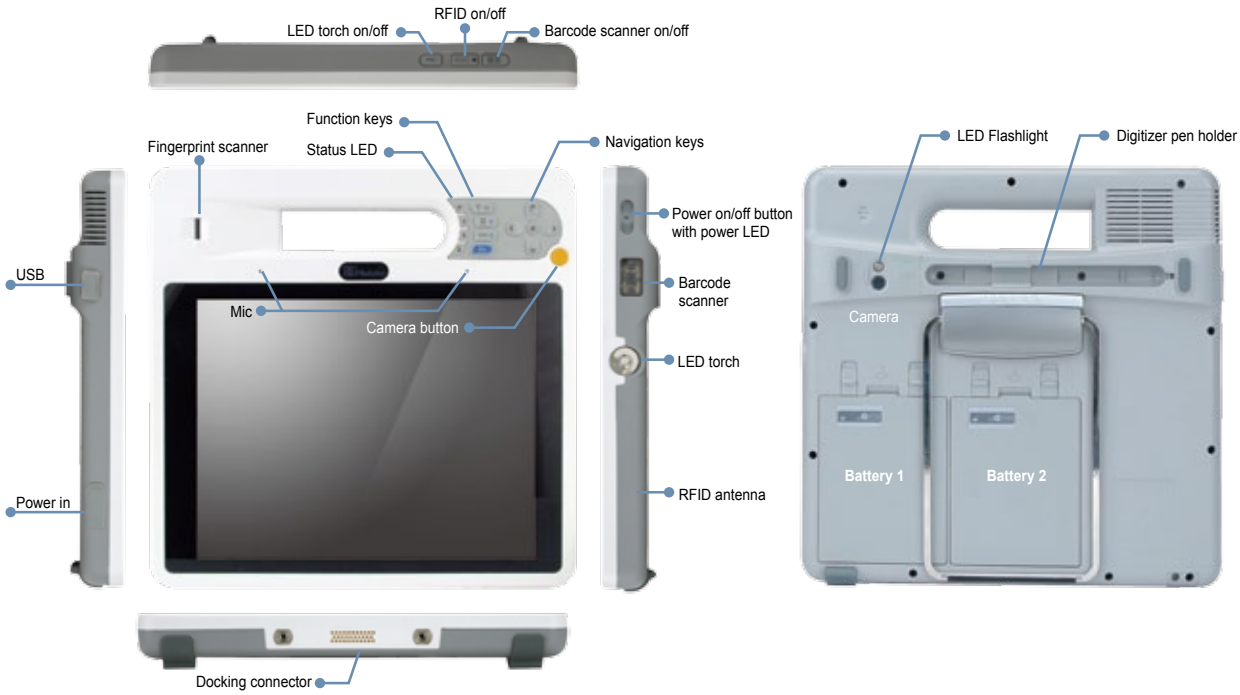
TAIWAN EXCELLENCE 2012

### Features

- 10.4” TFT XGA LCD
- Intel® Atom™ D525 dual core platform
- Powered by Windows ® Embedded Standard 7 P
- Dual-mode input (Digitizer + Multi-Resistive Touch)
- Dual hot swappable battery
- 1D/2D barcode reader, RFID reader, smart card reader and fingerprint reader
- Bluetooth, Wi-Fi, 3.75G wireless

### Specifications

| Model | | ICEFIRE-T10A HU/2G-32S-R11 | ICEFIRE-T10A-TR/2G-32S-R10 | ICEFIRE-T10A-ET/2G-32S-R10 |
|---|---|---|---|---|
| Display | LCD Size | 10.4” TFT LCD | | |
| | Brightness (cd/m²) | 350 cd/m² | | |
| | Max Resolution | 1024 x 768 pixels XGA | | |
| | Viewing Angle | 88/88/88/88 Deg. | | |
| | Touch Screen | Resistive Support Multi-touch and Gesture | | |
| | Digitizer | 256 levels @ full scale pressure resolution | N/A | N/A |
| System | CPU | 1.8GHz Intel® Atom™ D525 | | |
| | Chipset | Intel® ICH8M | | |
| | Operating System | Microsoft® Windows® Embedded Standard 7 P (WS7P) | | |
| | Memory | 1333MHz 2GB DDR3 SDRAM | | |
| | Storage | 32GB SSD | | |
| Communication | Wireless LAN | Wi-Fi 802.11a/b/g/n | | |
| | Bluetooth | Bluetooth V2.1+ EDR (Class 2) | | |
| | Modem | WCDMA/HSUPA | N/A | N/A |
| | GPS | N/A | N/A | N/A |
| Data Collection | Camera | 3-megapixel and LED Light | | |
| | Barcode | 1D/2D Imager Scan Engine | | N/A |
| | RFID | 13.56 MHz RFID supports ISO15693 and ISO14443A/B compliant | | N/A |
| Fingerprint Reader | | Yes | Yes | N/A |
| Indicators & Buttons | LED Indicators | Power/ Wi-Fi/Bluetooth/ RFID/ Battery Status LED | | Power/ Wi-Fi/Bluetooth/ Battery Status/ |
| | Keys | 5-way Navigation key/Barcode Scanner/RFID/LED Torch/Camera/Wi-Fi/Bluetooth/SAS/ Function Key | | 5-way Navigation key/Camera/Wi-Fi/ Bluetooth/SAS/Function Key |
| I/O Interface | USB | 1 x USB 2.0 | | |
| | LAN | 1 x 10/100 Mbps | | |
| | Audio | 1 x 2W Speaker, 1 x Mic in | | |
| | LED Torch | 1 x LED Torch | 1 x LED Torch | N/A |
| Power | Power Adapter | 12V @ 5A @ 60W | | |
| | Docking Power Adapter | 19V @ 4.74A @ 90W | | |
| | Battery | Dual 11.1V 1880mAh Li-ion Battery | | |
| Environment | Operating Temperature | 0ºC to +40ºC | | |
| | Storage Temperature | -10ºC to +60ºC | | |
| | Humidity | 5%~95% non-condensing | | |
| | Drop Survival | 90 cm | | |
| | Environmental Protection | IP 64 compliant front panel | | |
| | Certifications | CE/FCC, Medical-grade Class B EN 60601-1/EN60950 | CE/FCC, Medical-grade Class B EN 60601-1/EN60950 | CE/FCC |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 270 x 265 x 29 | | |
| | Weight | 1.7 kg | 1.7 kg | 1.6 kg |




## Packing List

| Item | Part No. | HU | TR | ET |
|---|---|---|---|---|
| Digitizer Pen | 7Z000-SU5E10S06AU00X-RS | • | | |
| Stylus | 43125-0002C0-00-RS | | • | • |
| Battery Pack | 31603-000016-RS | • | • | |
| Battery Pack-B | 31603-000020-RS | | | • |
| Medical-grade Power Adapter (12V/60W) | 63040-010060-020-RS | • | • | |
| Non-Medical-grade Power Adapter (12V/60W) | 63040-010060-030-RS | | | • |
| User's Manual CD | 7B000-000552-RS | • | • | • |

Carrying Case | Docking Station | Smart Card Reader | Battery Pack | 12V Power Adapter | 19V Power Adapter | Digitizer Pen | Stylus

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Docking Station | ICEFIRE-T10A-DSNM-R10 | ICEFIRE Docking Station Without Docking Adapter, Normal type |
| | ICEFIRE-T10A-DSRG-R10 | ICEFIRE Docking Station Without Docking Adapter, Rugged type |
| Docking Station Power Adapter | 19B00-000288-00-RS | Standard power adapter for docking station |
| | 19B00-000289-00-RS | Medical grade power adapter for docking station |
| Smart Card Reader | ICEFIRE-T10A-SCR01-R10 | USB 2.0 (Full Speed) Smart Card Reader Complies with ISO7816-1,2,3 for ICEFIRE-T10A |
| Battery Pack | 31603-000016-RS | 11.1V 1880 mAh Battery |
| Battery Pack-B | 31603-000020-RS | 11.1V 1880 mAh Battery, Black |
| Digitizer Pen | 7Z000-SU5E10S06AU00X-RS | Digitizer Sensor Pen |
| Stylus | 43125-0002C0-00-RS | Touch Pen |
| Carrying Case | 7Z000-ICEFIRET10APOUCH-RS | Black, leather protective bag with shoulder strap |

## Ordering Information

| Part No. | Description |
|---|---|
| **ICEFIRE: Intel® Atom™ D525 CPU with Windows® Embedded Standard 7** | |
| ICEFIRE-T10A-HU/2G-32S-R11 | 10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ D525 1.8GHz CPU, Multi-Touch and Digitizer Dual Mode, 2GB DDR3 RAM, HSUPA, 802.11a/b/g/n Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3-megapixel Camera, LED Torch, 32GB SSD, WS7P RoHS |
| ICEFIRE-T10A-TR/2G-32S-R10 | 10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ D525 1.8GHz CPU, Resistive Multi-Touch, 2GB DDR3 RAM, 802.11a/b/g/n Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3-megapixel Rear Camera, LED Torch, 32GB SSD, WS7P, RoHS |
| ICEFIRE-T10A-ET/2G-32S-R10 | 10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ D525 1.8GHz CPU, Resistive Multi-Touch, 2GB DDR3 RAM, 802.11a/b/g/n Wireless, Bluetooth, 32GB SSD, WS7P RoHS |

# ICEFIRE 2

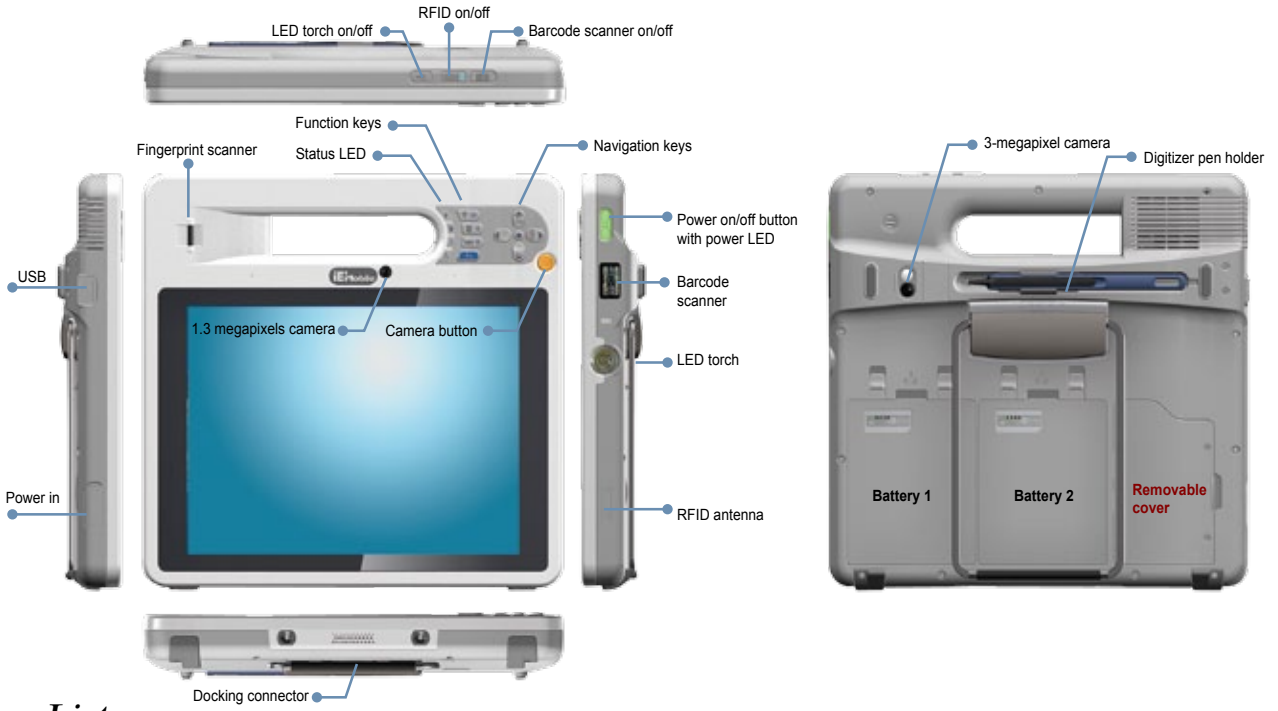
## 10.4” Mobile Clinic Assistant

### *Features*

- 10.4” TFT XGA LCD
- Intel® Atom™ N2800 1.86GHz processor
- Powered by Windows® Embedded Standard 7 P
- Built-in 8GB mSATA storage
- Bluetooth, Wi-Fi, 3.75G wireless
- 1D/2D barcode reader, 13.56MHz RFID reader
- Dual-mode input (Digitizer + Capacitive Touch)
- Dual hot swappable battery
- Dual Camera:
  1.3-megapixel front camera
  3.0-megapixel rear camera

### *Specifications*

| Model | | ICEFIRE2-T10-HU-R10 | ICEFIRE2-T10-TR-R10 | ICEFIRE2-T10-ET-R10 |
|---|---|---|---|---|
| Display | LCD Size | 10.4” TFT LCD | | |
| | Brightness (cd/m²) | 350 cd/m² | | |
| | Max Resolution | 1024 x 768 pixels XGA | | |
| | Viewing Angle | 88/88/88/88 Deg. | | |
| | Touch Screen | Capacitive Support Multi-touch | | |
| | Digitizer | 2048 levels@ full scale pressure resolution | N/A | N/A |
| System | CPU | 1.86GHz Intel® Atom™ N2800 | | |
| | Chipset | Intel® NM10 | | |
| | Operating System | Microsoft® Windows® Embedded Standard 7 P (WS7P) | | |
| | Memory | 1333MHz 4GB DDR3 SDRAM | | |
| | Storage | mSATA 8G SLC | | |
| Communication | Wireless LAN | Wi-Fi 802.11b/g/n | | |
| | Bluetooth | Bluetooth V3.0 + EDR (Class 2) | | |
| | Modem | WCDMA/HSUPA | N/A | N/A |
| Data Collection | Barcode | 1D/2D Imager Scan Engine | | N/A |
| | RFID | 13.56 MHz RFID supports ISO 15693 and 14443A/B compliant | | N/A |
| Fingerprint Reader | | Yes | Yes | N/A |
| Indicators & Buttons | LED Indicators | Power/ Wi-Fi/Bluetooth/ RFID/ Battery Status LED | | Power/ Wi-Fi/Bluetooth/ Battery Status |
| | Keys | 5-way navigation key/ Barcode Scanner/RFID/LED Torch/Camera/Wi-Fi/ Bluetooth/SAS/Function Key | | 5-way navigation key//Camera/ Wi-Fi/ Bluetooth/ SAS/Function Key |
| I/O Interface | USB | 1 x USB 3.0 | | |
| | LAN | 1 x 10/100/1000 Mbps | | |
| | Audio | 1 x 2W Speaker, 1 x Mic in | | |
| | LED Torch | 1 x LED Torch | 1 x LED Torch | N/A |
| Power | Power Adapter | 12V @ 5A @ 60W | | |
| | Docking Power Adapter | 19V @ 4.74A @ 90W | | |
| | Battery | Dual 11.1V 1880mAh Li-ion Battery | | |
| Environment | Operating Temperature | 0ºC to +40ºC | | |
| | Storage Temperature | -10ºC to +60ºC | | |
| | Humidity | 5%~95% non-condensing | | |
| | Drop Survival | 90 cm | | |
| | Environmental Protection | IP 64 compliant front panel | | |
| | Certifications | CE/FCC | CE/FCC | CE/FCC |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 270 x 265 x 29 | | |
| | Weight | 1.7 kg | 1.7 kg | 1.6 kg |




## Packing List

| Item | Part No. | HU | TR | ET |
|---|---|---|---|---|
| Digitizer Pen | 7Z000-SU5E10S06AU00X-RS | • | | |
| Stylus | 43125-0002C0-00-RS | | • | • |
| Battery Pack | 31603-000016-RS | • | • | |
| Battery Pack-B | 31603-000020-RS | | | • |
| Medical-grade Power Adapter (12V/60W) | 63040-010060-020-RS | • | • | |
| Non-Medical-grade Power Adapter (12V/60W) | 63040-010060-030-RS | | | • |
| User's Manual CD | 7B000-000552-RS | • | • | • |

Carrying Case | Docking Station | Smart Card Reader | Battery Pack | 12V Power Adapter | 19V Power Adapter | Digitizer Pen | Stylus

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Docking Station | ICEFIRE-T10A-DSNM-R10 | ICEFIRE Docking Station Without Docking Adapter, Normal type |
| | ICEFIRE-T10A-DSRG-R10 | ICEFIRE Docking Station Without Docking Adapter, Rugged type |
| Docking Station Power Adapter | 19B00-000288-00-RS | Standard power adapter for docking station |
| | 19B00-000289-00-RS | Medical grade power adapter for docking station |
| | 63040-290090-010-RS | Car cigarette power adapter for docking station |
| Smart Card Reader | ICEFIRE-T10A-SCR01-R10 | USB 2.0 (Full Speed) Smart Card Reader Complies with ISO7816-1,2,3 for ICEFIRE-T10A |
| Battery Pack | 31603-000016-RS | 11.1V 1880 mAh Battery |
| Battery Pack-B | 31603-000020-RS | 11.1V 1880 mAh Battery, Black |
| Digitizer Pen | 7Z000-SU5E10S06AU00X-RS | Digitizer Sensor Pen |
| Stylus | 43125-0002C0-00-RS | Touch Pen |
| Carrying Case | 7Z000-ICEFIRET10APOUCH-RS | Black, leather protective bag with shoulder strap |

## Ordering Information

| Part No. | Description |
|---|---|
| **ICEFIRE 2: Intel® Atom™ N2800 CPU with Windows® Embedded Standard 7** | |
| ICEFIRE2-T10-HU-R11 | 10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ N2800 1.86GHz CPU, Capacitive Multi-Touch and Digitizer Dual Mode, 4GB DDR3 RAM, HSUPA, 802.11b/g/n Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3M Pixel Rear Camera, 1.3-megapixel Front Camera, LED Torch, 8GB mSATA, WS7P RoHS |
| ICEFIRE2-T10-TR-R11 | 10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ N2800 1.86GHz CPU, Capacitive Multi-Touch, 4GB DDR3 RAM, 802.11b/g/n Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3-megapixel Rear Camera, 1.3-megapixel Front Camera, LED Torch, 8GB mSATA, WS7P, RoHS |
| ICEFIRE2-T10-ET-R11 | 10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ N2800 1.86GHz CPU, Capacitive Multi-Touch, 4GB DDR3 RAM, 802.11b/g/n Wireless, Bluetooth, 8GB mSATA, WS7P RoHS |

# ICEROCK

## Infotainment Tablet PC

### *Features*

- 8” 350 cd/m² TFT XGA LCD
- Intel® Atom™ Z530 platform
- Powered by Windows® XP Embedded
- Bluetooth, Wi-Fi, 3.75G wireless
- Optional 1D/2D barcode scanner and 13.56 MHz RFID reader compliant with ISO 15693 and ISO 14443A

### *Specifications*

| Model | | ICEROCK |
|---|---|---|
| Display | LCD Size | 8.0” TFT LCD |
| | Brightness (cd/m²) | 350 cd/m² |
| | Max Resolution | 800 x 600 pixels SVGA |
| | Viewing Angle | 70/70/60/70 Deg. |
| System | CPU | Intel® Atom™ Z530 1.6GHz |
| | Chipset | Intel® SCH US15WP |
| | Operating System | Microsoft® Windows® XP Embedded |
| | Memory | 2GB DDR2 on board |
| | Storage | CompactFlash® Slot, SD Card Slot |
| Communication | Wireless LAN | Wi-Fi 802.11b/g/n |
| | Bluetooth | Bluetooth® V3.0 + HS (Class II) |
| | Modem | WCDMA/HSUPA (optional) |
| | GPS | by customization |
| Data Collection | Camera | 1.3-megapixel |
| | Barcode | 1D Laser / 2D Imager Scan Engine |
| | RFID | 13.56 MHz RFID supports ISO 14443A/B |
| Indicators & Buttons | LED Indicators | Power/ Wi-Fi/Bluetooth/HDD/3.75G Status LED |
| | Keys | 5-way navigation key<br>8 x Programmable function keys |
| I/O Interface | USB | 2 x USB 2.0<br>1 x Mini USB Client |
| | LAN | 1 x 10/100/1000 Mbps GbE RJ-45 |
| | Audio | 2 x 1.5W Speaker |
| | | 1 x Mic<br>1 x Headphone |
| Power | Power Adapter | 12V @ 3A @ 36W |
| | Battery | 7.4 V 2400 mAh Li-ion Battery (Optional 5000mAH) |
| Enviroment | Operating Temperature | 0˚C to +40˚C |
| | Storage Temperature | -20˚C to +60˚C |
| | Humidity | 5%~95% non-condensing |
| | Drop Survival | 1.0 M |
| | Environmental Protection | IP 62 compliant front panel |
| | Certifications | CE/FCC |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 255 x 180 x 37 |
| | Weight | 1.1 kg |

## Optional Accessory List

| Item | ICEROCK | Description |
|---|---|---|
| Docking Station | ICEROCKDS-08A-R10 | Docking station with VGA, five USB 2.0, RJ-45, and RS-232 ports for ICEROCK series |
| Battery Pack | 31603-000011-RS | 7.4V 2400 mAh Battery |
| Battery Pack - Large | 31603-000022-RS | 7.4V 5000 mAh Battery |
| Leather Carrying Case | ICEROCKCB-00-R10 | Leather carrying case in black for ICEROCK-08A series |
| OS Windows® XP Embedded | ICEROCKCF-08-XPE-2GB-R10 | 2 GB CompactFlash® with Windows® XPE OS image and license |
| | ICEROCKCF-08-XPE-4GB-R10 | 4 GB CompactFlash® with Windows® XPE OS image and license |

## Packing List

| Item | Part No. | Q'ty |
|---|---|---|
| Battery Pack | 31603-000011-RS | 1 |
| Power Adapter | 63040-010060-030-RS | 1 |
| Power Cord | 32702-000200-100-RS | 1 |
| Stylus | 7Z000-6051D0320101-RS | 1 |
| Plastic Protective Shell | 47003-007600-00-RS | 1 |
| User Manual CD | 7B000-000774-RS | 1 |
| IEI One Key Recovery CD | 7B000-000724-RS | 1 |

Stylus | Battery Pack | Docking Station | Battery Pack (Large) | Power Adapter | Plastic Protective Shell | Leather Carrying Case

## Ordering Information

| Part No. | Description |
|---|---|
| ICEROCK-08A-Z530/WT-R/2G-R12 | 8.0" 350cd/m² SVGA Mobile Panel PC with Intel® Atom™ Z530 1.6GHz, 802.11b/g/n Wireless Module, Bluetooth Module, Touch screen, 1.3-megapixel Camera, 2GB SDRAM, RoHS |
| ICEROCK-08A-WT-R-HU/2G-R12 | 8.0" 350cd/m² SVGA Mobile Panel PC with Intel® Atom™ Z530 1.6GHz, 802.11b/g/n Wireless Module, Bluetooth Module, Touch screen, 1.3-megapixel Camera, 2GB SDRAM, 3.75G Module, RoHS |
| ICEROCK-08A-BAR-2G-R12 | 8.0" 350cd/m² SVGA Mobile Panel PC with Intel® Atom™ Z530 1.6GHz, 802.11b/g/n Wireless, Bluetooth, RFID, 1D/2D Barcode Scanner, 1.3-megapixel Camera, 2GB SDRAM, RoHS |
| ICEROCK-08A-BAR-HU/2G-R12 | 8.0" 350cd/m² SVGA Mobile Panel PC with Intel® Atom™ Z530 1.6GHz, 802.11b/g/n Wireless, Bluetooth, RFID, 1D/2D Barcode Scanner, 1.3-megapixel Camera, 2GB SDRAM, 3.75G Module, RoHS |

# ICE Charger A

## Mobile Elite Manager

The ICE Charger A for the IEIMobile ICE series tablet PC is an external bay for charging additional batteries. With its flexible conversion design, the ICE Charger A can charge different battery packs from the ICEFIRE, ICEROCK and ICECARE. In addition, the interlocking 4-bay design allow users to locate charging bays in one location, minimizing the space required. The ICE Charger A is ideal for long work hours, busy work days, and quick recharge requirements.

### *Features*

- Charges extra batteries for the ICE series tablet PC
- 100 V to 240 V AC
- CE/FCC compliant and EMC certified
- Interlocking charging bay design

## For ICEFIRE and ICECARE Battery Packs

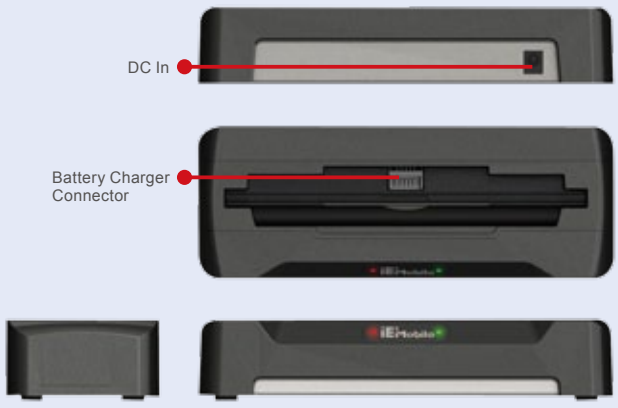
1. Secure the conversion cover onto the charging dock.

2. Insert and leave the battery in the charging bay to charge

## For ICEROCK

1. Insert the battery into the charging bay.

2. Leave the battery in the charging bay to charge the battery




Dimensions (mm): 190 (W) x 70 (L) x 35 (H)

### *Specifications*

| | |
|---|---|
| **Model** | **ICECHARGER** |
| **Power Input** | 19V/4.74A/90W |
| **Indicators** | Charging Status LED |
| **Certifications** | CE, FCC |
| **Dimensions (W x L x H) (mm)** | 190 x 70 x 35 |
| **Weight** | 300 g |

### *Packing List*

| Item | Part No. | Q'ty |
|---|---|---|
| **ICECHARGER A1** | ICECHARGER-A1-R10 | 1 |

### *Ordering Information*

| Part No. | Description |
|---|---|
| **ICECHARGER-A1-R10** | ICE series charger with single charging bay |

# Industrial PDA/EDA Matrix

| Model | | | MODAT-530 | MODAT-531 | MODAT-335 | MODAT-335-A | MODAT-100 | MODAT-200 | MODAT-328 |
|---|---|---|---|---|---|---|---|---|---|
| Display | LCD size | | 5.3 LCD | 5.3 LCD | 3.5 TFT LCD (sunlight readable) | 3.5 TFT LCD (sunlight readable) | 3.5 TFT LCD (sunlight readable) | 3.5" TFT LCD (sunlight readable) | 2.8 TFT LCD |
| | Brightness cd/m² | | 350 cd/m² | 350 cd/m² | 190 cd/m² | 190 cd/m² | 190 cd/m² | 250 cd/m² | 240 cd/m² |
| | Max. Resolution | | 480(H) x 854(V) | 480(H) x 854(V) | 240(H) x 320(V) QVGA | 240(H) x 320(V) QVGA | 240(H) x 320(V) QVGA | 240(H) x 320(V) QVGA | 240(H) x 320(V) QVGA |
| | Viewing Angle | | 70/70/70/70 Deg | 70/70/70/70 Deg | 80/80/80/80 Deg | 80/80/80/80 Deg | 80/80/80/80 Deg | 80/80/80/80 Deg | 70/50/70/70 Deg |
| | Touch Screen | | 10-point capacitive | 10-point capacitive | 4-wire resistive | 4-wire resistive | 4-wire resistive | 4-wire resistive | 4-wire resistive |
| System | CPU | | Quad Cortex-A7 1.2GHz | Quad Cortex-A7 1.2GHz | | TI Sitara AM3715 1GHz | Marvell® PXA 310 624MHz | Samsung® 6410 ARM11 667MHz | Marvell® PXA 310 624MHz |
| | Operating System | | Android 4.2x | Android 4.2x | Microsoft® Windows® Embedded Handheld 6.5 | Android | Microsoft® Windows® Embedded Handheld 6.5 | Microsoft® Windows® Embedded Handheld 6.5 | Microsoft® Windows® Embedded Handheld 6.5 |
| | Memory | | 4GB eMMC 1G LPDDR2 | 4GB eMMC 1G LPDDR2 | 256MB Flash 256MB SDRM | 4GB eMMC 512MB SDRM | 128MB Flash 256MB SDRM | 128MB Flash 128MB SDRM | 256MB Flash 128MB SDRM |
| | Storage | | MicroSD Slot up tp 32GB | MicroSD Slot up tp 32GB | MicroSD Slot up tp 32GB | MicroSD Slot up tp 32GB | MicroSD Slot up tp 32GB | MicroSD Slot up tp 32GB | MicroSD Slot up tp 32GB |
| Communication | Wi-Fi | | 802.11 b/g/n | 802.11 b/g/n | 802.11 a/b/g/n | 802.11 a/b/g/n | 802.11 b/g | 802.11 b/g | 802.11 b/g |
| | Bluetooth | | 4.0 LE | 4.0 LE | 2.1 + EDR | 4.0 | 2.1 + EDR | 2.1 + EDR | 2.1 + EDR |
| | Modem | | GSM 900/1800 WCDMA 850/2100 | GSM 900/1800 WCDMA 850/2100 | WCDMA/HSDPA supports UMTS 900/2100MHz & GSM 900/1800MHz | WCDMA/HSDPA or GPRS | WCDMA/HSDPA | N/A | N/A |
| | GPS | | GPS | GPS | Internal antenna | Internal antenna | Internal antenna | N/A | N/A |
| Data Collection | RFID | | ISO 15693 ISO 18000-3 ISO 14443A (Mifare) ISO 14443B (Felica) Support NFC Forum Type 1-4 Tag | ISO 15693 ISO 18000-3 ISO 14443A (Mifare) ISO 14443B (Felica) Support NFC Forum Type 1-4 Tag | 13.56 MHz RFID support ISO 14443A (Mifare) ISO 14443B (FeliCa) ISO 15693 | 13.56 MHz RFID support ISO 15693 ISO 14443 A/B compliant | 13.56 MHz RFID support ISO 14443A (Mifare) ISO 14443B (FeliCa) ISO 15693 ISO 18092 | N/A | 13.56 MHz RFID support ISO 14443A (Mifare) ISO 14443B (FeliCa) ISO 15693 ISO 18092 |
| | Barcode | | N/A | 1D/2D Imager scan engine | 1D/2D Imager scan engine | 1D/2D Imager scan engine | 1D Laser scan engine | N/A | 1D/2D Imager scan engine |
| | Camera | | 8-megapixel AF rear camera w/LED flash light | 8-megapixel AF rear camera w/LED flash light | 5-megapixel CMOS camera w/LED flash light | 5-megapixel CMOS camera w/LED flash light | 5-megapixel CMOS camera w/LED flash light | N/A | 5-megapixel CMOS camera w/LED flash light |
| Indicators & Buttons | LED Indicators | | 1 x Charging status | 1 x Charging status | 1 x Charging status 1 x Wi-Fi enable/ disable 1 x 3.5G/2.5G enable/ disable | 1 x Charging status 1 x Wi-Fi enable/ disable 1 x 3.5G/2.5G enable/ disable | 1 x Charging status 1 x HSDPA | 1 x Charging status 1 x Wi-Fi enable/ disable | 1 x Charging status 1 x Wi-Fi/Bluetooth enable/disable |
| | Hot Keys | | N/A | N/A | 2 x Barcode key 1 x Camera key | 2 x Barcode key 1 x Camera key | 2 x Barcode key | 1 x Rolling key | 2 x Barcode key 1 x Camera key |
| I/O Interface | Audio | | 1x Speaker 1x Headset/Built-in mic-in | 1x Speaker 1x Headset/Built-in mic-in | 1x Speaker 1x Headset/Built-in mic-in | 1x Speaker 1x Headset/Built-in mic-in | 1x Speaker 1x Headset/Built-in mic-in | 1x Speaker | 1x Speaker 1x Headset/Built-in mic-in |
| | Expansion | USB Expansion Cable | 6-pin connector (battery Charging/USB host/USB client) | 6-pin connector (battery Charging/USB host/USB client) | 16-pin connector (RS-232/battery Charging/ USB host/USB client) | 16-pin connector (RS-232/battery Charging/USB host/ USB client) | 16-pin connector (RS-232/battery Charging/USB host/ USB client) | N/A | 16-pin connector (RS2-32/battery Charging/USB host/ USB client) |
| | | Cable | 1 x Mini USB client 2.0 | 1 x Mini USB client 2.0 | 1 x Mini USB client 2.0 | 1 x Mini USB client 2.0 | N/A | N/A | 1 x Mini USB client 2.0 |
| | | Printer | N/A | N/A | N/A | N/A | 2 x Thermal printers | N/A | N/A |
| | | Card Reader | N/A | N/A | N/A | N/A | Smart card reader support | N/A | N/A |
| | | Magnetic Stripe Reader | N/A | N/A | N/A | N/A | Magnetic stripe reader support | N/A | N/A |
| Power | Power Adapter | Input | 100V AC to 240V AC ~ 50-60Hz 0.2A | 100V AC to 240V AC ~ 50-60Hz 0.2A | 100V AC to 240V AC ~ 50-60Hz 0.2A | 100V AC to 240V AC ~ 50-60Hz 0.2A | 100V AC to 240V AC | 100V AC to 240V AC ~ 50-60Hz 0.2A | 100V AC to 240V AC ~ 50-60Hz 0.2A |
| | | Output | 5V/2.6A | 5V/2.6A | 5V / 2.1A | 5V / 2.1A | 12V/3A | 5V/1A | 5V / 2.1A |
| | Battery | | 2700 mAh | 3900 mAh | 3.7V 3000 mAh | 3.7V 3000 mAh | 7.4V 1880 mAh | 3.7V 1800 mAh (built-in, non-swappable) | 3.7V 1880 mAh |
| Environment | Operating Temperature | | -10°C ~ 50°C | -10°C ~ 50°C | -10°C ~ 50°C | -10°C ~ 50°C | 0°C ~ 50°C | -10°C ~ 50°C | -10°C ~ 50°C |
| | Storage Temperature | | -20°C ~ 60°C | -20°C ~ 60°C | -20°C ~ 60°C | -20°C ~ 60°C | -20°C ~ 70°C | -20°C ~ 70°C | -20°C ~ 60°C |
| | Humidity | | 5% ~ 90%, non-condensing | | | | 5% ~ 95% non codensing | | |
| | Drop Survival | | 1.5M | 1.2M | 1.5M | 1.5M | 1.2M | 1.2M | 1.5M |
| | Environmental Protection | | IP 67 | IP 67 | IP 54 | IP 54 | IP 54 (front panel only) | IP 54 | IP 54 (front panel only) |
| | Cerification | | CE / FCC | CE / FCC | CE / FCC | CE / FCC | CE / FCC | CE / FCC /BSMI | CE / FCC |
| Physical | Dimensions | | 161.5 x 86 x 17.45 | 160.9 x 85.4 x 28.25 | 218 x 81 x 46 | 218.5 x 81 x 46 | 230 x 84 x 54 | 125 x 74 x 18.7 | 172 x 55 x 31 |
| | Weight | | 287 g | 386 g | 405 g | 405 g | 546 g | 200 g | 245 g |

# MODAT-530

## Ruggized Android PDA

New

## Features

- Stylish rugged design and ultra-light industrial Android mobile device
- Quad-core Cortex™-A7 1.2GHz processor
- 5.3” display PDA
- GSM 850/900/1800/1900
- Optional WCDMA 850/2100 (HSPA+, HSDPA 42Mbps, HSUPA 11.5Mbps)
- Micro USB port and microSD card slot (max. 32 GB) for maximum connectivity
- Android 4.2.2 OS
- NFC (device to device communication, card reader)

4.0G/HSUPA Bluetooth Wi-Fi NFC GPS ANDROID

## Specifications

| Model | | MODAT-530 |
|---|---|---|
| Display | LCD Size | 5.3” |
| | Brightness (cd/m²) | 350 cd/m² |
| | Max. Resolution | 480(H) x 854(V) |
| | Viewing Angle | 70/70/70/70 Deg. |
| | Touchscreen | 5-point capacitive |
| System | CPU | Quad-core Cortex™-A7 1.2GHz |
| | Operating System | Android 4.2.2 |
| | Memory | 4GB eMMC<br>1GB LPDDR2 |
| | Storage | microSD slot supports up tp 32GB (SDHC supported) |
| Communication | Wi-Fi | 802.11b/g/n |
| | Bluetooth | 4.0 LE |
| | Modem | GSM 850/900/1800/1900<br>WCDMA 850/2100 (HSPA+, HSDPA 42Mbps, HSUPA 11.5Mbps) (optional) |
| | GPS | GPS |
| Data Collection | NFC | Yes |
| | Camera | 8-megapixe AF rear camera |
| Indicators & Buttons | LED Indicators | Green/Red |
| Sensors | Magnetometer | Optional |
| | Gravity Sensor | Yes |
| | Gyro scorp sensor | Optional |
| I/O Interface | Audio | 1 x 0.5W speaker<br>1 x Headset/Microphone |
| | USB | 1 x High-speed Micro USB 2.0 host |
| Power | Power Adapter | 5V/2.6 A |
| | Battery | 2700 mAh |
| Enviroments | Operating Temperature | -10°C ~ 50°C |
| | Storage Temperature | -20°C ~ 60°C |
| | Humidity | 5% ~ 95%, non condensing |
| | Drop Survival | 1.5M |
| | Environmental Protection | IP 67 |
| | Cerification | CE/FCC |
| Physical | Dimensions (L x W x H) | 161.5 mm x 86 mm x 17.45 mm |
| | Weight | 287 g |

## Packing List

| Item | Part No. | Q'ty |
|---|---|---|
| USB Cable | 32001-014300-100-RS | 1 |
| Wall charger/AC adaptor (world plugs included) | 63040-290013-000-RS | 1 |
| Hand Strap | 46035-000300-RS | 1 |

## Ordering Information

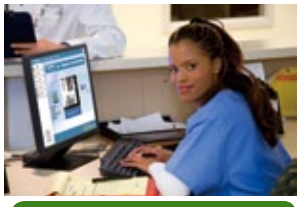
| Part No. | Description |
|---|---|
| MODAT-530A-QA7-R10 | 5.3" 350 cd/m², Android phone/PDA with quad-core Cortex™-A7 1.2 GHz CPU, GPRS/EDGE, 802.11b/g/n Wi-Fi, 4.0 LE Bluetooth, 3G 2100/850(optional) , GPS (GNSS, AGPS), FM (RX), Capacitive touchscreen, 8-megapixel camera, 1GB DDR2, 4G eMMC, Andriod 4.2.x, NFC, RoHS. |

# Mobility Anywhere from Warehouse to Office

- All data and information captured by the MODAT-530 can be transferred via the wireless communication technologies to provide real-time response without any loss, therefore enhancing on-duty staff work force and mobility.
- Combining the QNAP NAS data collection device and MODAT-530 provides easy access to your NAS data anywhere from the warehouse/docking area, retail space and back office.

Warehouse

Retail Space


Office / Server room

# MODAT-531

## Mobile Data Collector

New

## Features

- Stylish rugged design and ultra-light industrial Android mobile device
- Quad-core Cortex™-A7 1.2GHz processor
- 5.3” display PDA
- GSM 850/900/1800/1900
- Optional WCDMA 850/2100 (HSPA+, HSDPA 42Mbps, HSUPA 11.5Mbps)
- Micro USB port and microSD card slot (max. 32 GB) for maximum connectivity
- Android 4.2.2 OS
- 1D/2D Imager scan engine
- NFC (device to device communication, card reader).

Camera Wi-Fi Bluetooth NFC GPS 1D Barcode Scanner 2D Barcode Scanner ANDROID

## Specifications

| Model | | MODAT-531 |
|---|---|---|
| Display | LCD size | 5.3” |
| | Brightness (cd/m²) | 350 cd/m² |
| | Max. Resolution | 480(H) x 854(V) |
| | Viewing Angle | 70/70/70/70 Deg. |
| | Touchscreen | 5-point capacitive |
| System | CPU | Quad-core Cortex™-A7 1.2GHz |
| | Operating System | Android 4.2.2 |
| | Memory | 4GB eMMC<br>1GB LPDDR2 |
| | Storage | microSD slot up tp 32GB |
| Communication | Wi-Fi | 802.11b/g/n |
| | Bluetooth | 4.0 LE |
| | Modem | GSM 850/900/1800/1900<br>WCDMA 850/2100 (HSPA+, HSDPA 42Mbps, HSUPA 11.5Mbps) (optional) |
| | GPS | GPS |
| Data Collection | NFC | Yes |
| | Barcode | 1D/2D Imager scan engine |
| | Camera | 8-megapixe AF rear camera |
| Indicators & Buttons | LED Indicators | Green/Red |
| Sensors | Magnetometer | Yes |
| | Gravity Sensor | Yes |
| I/O Interface | Audio | 1 x 0.5W Speaker<br>1 x Headset/Dual mic-in |
| | USB | 1 x High-speed Micro USB 2.0 host |
| Power | Power Adapter | 5V/2.6A |
| | Battery | 3900 mAh |
| Enviroments | Operating Temperature | -10°C ~ 50°C |
| | Storage Temperature | -20°C ~ 60°C |
| | Humidity | 5% ~ 95%, non condensing |
| | Drop Survival | 1.2 m |
| | Environmental Protection | IP 67 |
| | Cerification | CE/FCC |
| Physical | Dimensions (L x W x H) | 160.9 mm x 85.4 mm x 28.85 mm |
| | Weight | 386 g |

## Packing List

| Item | Part No. | Q'ty |
|---|---|---|
| USB Cable | 32001-014300-100-RS | 1 |
| AC-DC Adapter | 63040-290013-000-RS | 1 |
| Hand Strap | 46035-000300-RS | 1 |

## Ordering Information

| Part No. | Description |
|---|---|
| MODAT-531A-QA7-R10 | 5.3" 350 cd/m², Androide phone/PDA with Quad-core Cortex™-A7 1.2 GHz CPU, GPRS/EDGE, 802.11b/g/n Wi-Fi, 4.0 LE Bluetooth, 3G 2100/850, GPS , FM, Capacitive Touchscreen, 8-megapixel camera, 1GB LPDDR2, 4GB eMMC, Andriod 4.2.x, NFC, 1D/2D Barcode, RoHS. |

# Enterprise PDA Mobility Management Solution

- Stylish rugged IP67 design and Ultra-light industrial PDA/ EDA mobile device with Android 4.2.2 OS system.
- MODAT-531 NFC (Near field communication) can be used as an mobile terminal allow your associate to indentify sign in user, using MODAT-530 device.
- Enhancing on-duty staff work force and mobility, all data and information capture in MODAT-530 and can be transfer via wireless communication providing real-time response without any lost.
- Quad-core A7 1.2GHz processor, 5.3"mobile PDA phone
- GSM 850/900/1800/1900
- WCDMA 850/2100 (HSPA+, HSDPA 42Mbps, HSUPA 11.5Mbps)

# MODAT-335

## Field Service Terminal

## Features

- 3.5” TFT sunlight readable LCD touch screen
- Marvell® PXA 310 624MHz CPU
- Built-in Windows® Embedded Handheld 6.5 OS
- Wi-Fi, Bluetooth and WCDMA/HSDPA or GPRS wireless technology
- Built-in GPS
- 1D Laser/2D Imager Scan Engine and Supports Mifare (ISO 14443A) Felica, ISO 18092 and ISO 15693 RFID reader and 5-megapixel Camera
- Optional Handle Grip
- Optional UHF multiple tag reader supports 3-meter reading distance

## Specifications

| Model | | MODAT-335-WB65-En-E-R11 | MODAT-335-GPRS-WB65-En-E-R11 | MODAT-335-1D-WB65-En-R11 |
|---|---|---|---|---|
| Display | LCD Size | 3.5 TFT LCD (Sunlight Readable) | | |
| | Brightness (cd/m² ) | 190 cd/m² | | |
| | Max Resolution (HxV) | 240(H) x 320(V) QVGA | | |
| | Viewing Angle | 80/80/80/80 Deg. | | |
| | Touch Screen | 4-Wire Resistive Type Touch | | |
| System | CPU | Marvell PXA 310 624MHz | | |
| | Operating System | Microsoft Windows Mobile 6.5 | | |
| | Memory | 256MB SDRAM | | |
| | SD card | Support MicroSD Slot up tp 32GB | | |
| | Storage | Built-in 256MB Nand Flash | | |
| Communication | Wireless LAN | Wi-Fi 802.11 a/b/g/n | Wi-Fi 802.11 a/b/g/n | Wi-Fi 802.11 a/b/g/n |
| | Bluetooth | Bluetooth 2.1+EDR | Bluetooth 2.1+EDR | Bluetooth 2.1+EDR |
| | Modem | WCDMA/HSDPA supports UMTS 900/2100MHz & GSM 900/1800MHz | GSM 900/1800 MHz | NA |
| | GPS | GPS w/internal antenna | GPS w/internal antenna | NA |
| Data Collection | Barcode | 1D/2D Imager Scan Engine | 1D Laser Scan Engine | 1D Laser Scan Engine |
| | RFID | 13.56 MHz RFID support ISO 15693 and 14443A & MIFARE & FeliCa | 13.56 MHz RFID support ISO 15693 and 14443A & MIFARE & FeliCa | NA |
| | Camera | 5 Mega Pixel CMOS Camera with LED Flash Light | | |
| Indicators & Buttons | Hot Keys | 1 x Power Button<br>1 x Camera Button<br>3 x Barcode Trigger Buttons | | |
| | LED Indicators | 1. Charging Status LED : Orange / Charging Full LED : Green<br>2. Wi-Fi enable LED : Green / disable LED : turn off<br>3. 3.5G enable LED : Green / disable LED : turn off | 1. Charging Status LED : Orange / Charging Full LED : Green<br>2. Wi-Fi enable LED : Green / disable LED : turn off<br>3. 2.5G enable LED : Green / disable LED : turn off | 1. Charging Status LED : Orange / Charging Full LED : Green<br>2. Wi-Fi enable LED : Green / disable LED : turn off |
| I/O Interface | Audio | 1x1.5W Speaker build in | | |
| | USB | 1 x Mini USB Client 2.0 | | |
| | Audio/Mic | Audio/Mic inx1 | | |
| | Expansion | 16 Pin Connector(RS232 / Battery Charging / USB Host / USB Client) | | |
| Power | Power Adapter | Input : 100V AC to 240V AC ~ 50-60Hz 0.2A<br>Output : 5 V / 2.6A | | |
| | Battery | 3.7V 3000 mAh battery | | |
| Environment | Operating Temperature | -10°C~50°C | | |
| | Storage Temperature | -20°C~60°C | | |
| | Humidity | 5%~90% non-condensing | | |
| | Drop Survival | 1.5 meter | | |
| | Environmental Protection | IP 54 | | |
| | Certification | CE / FCC | | |
| Physical | Dimensions (LxWxH) (mm) | 218.5 x 81 x 46.2 | | |
| | Weight | 405 g | | |

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Cradle | MODAT-300-CR01-R10 | Charging cradle with USB Client |
| Battery Pack | 31603-000017-RS | 3.7V 3000 mAh battery |
| 16-pin Cable | 32024-001500-100-RS | Connect to USB Host, USB Client and RS-232 |
| Handle Grip | MODAT-335-GRIP-R10 | Removable handle grip can trigger 1D/2D barcode |
| UHF Reader | MODAT-335-UHF-R10 | Ultra high frequency (UHF) reader whith 3000 mAh battery. |

## Packing List

| Item | Part No. | Q'ty |
|---|---|---|
| Battery Pack | 31603-000017-RS | 1 |
| USB Cable | 32001-000300-200-RS | 1 |
| AC-DC Adapter | 63040-330010-000-RS | 1 |
| Headset | 30900-000003-RS | 1 |
| Stylus | 7Z000-6051D0320101-RS | 1 |
| MODAT-335 Standard Pouch | 46037-000200-RS | 1 |
| Handle Grip Pouch | 46037-000100-RS | 1 |

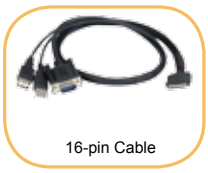
Cradle

USB Cable

Headset

Battery Pack

Stylus


16-pin Cable

UHF Reader

Handle Grip

Standard Pouch

Handle Grip Pouch

## Ordering Information

| Part No. | | Description |
|---|---|---|
| Windows® Embedded Handheld 6.5 Operating System | MODAT-335-WB65-En-E-R12 | The Windows® Mobile 6.5 based PDA with 3.5" panel, UMTS 900/2100MHz & GSM 900/1800MHz, GPS, WiFi, Bluetooth, RFID reader, 1D/2D barcode, 5M Camera, RoHS |
| | MODAT-335-GPRS-WB65-En-E-R12 | The Windows® Mobile 6.5 based PDA with 3.5" panel, GSM 900/1800MHz, WiFi, Bluetooth, RFID reader, GPS, 5M Camera, 1D barcode, RoHS |
| | MODAT-335-1D-WB65-En-R12 | The Windows® Mobile 6.5 based PDA with 3.5" panel,WiFi,Bluetooth, 1D barcode, 5M Camera, RoHS |

# UHF RFID Reader

The communication frequencies used in radio frequency identification (RFID) technology range from 125KHz to 2.45GHz. The MODAT-335 features an optional ultra high frequency (UHF) reader. The MODAT-335:

- Detects a frequency range from 840MHz to 960MHz
- Allows a long reading range
- Is excellent for reading multiple tags
- Carries one 3000 mAh battery inside

Extra 3000 mAh battery can support UHF power consumption, providing longer working hours!

Vehicle Identification

Object or Personnel Tracking

Multiple Item Identification

Long Range Reading

# MODAT-335A

## Field Service Terminal

## Features

- 3.5” TFT sunlight readable LCD touch screen
- Texas Instruments Sitara ARM Cortex A8 CPU
- Built-in Android 4.1.2 OS
- Wi-Fi, Bluetooth and WCDMA/HSDPA or GPRS wireless technology
- Built-in GPS
- 1D Laser/2D Imager Scan Engine and Supports Mifare (ISO 14443A) Felica (ISO 18092) and ISO 15693 RFID reader and 5-megapixel camera
- Optional Handle Grip

3.75G/HSUPA | Bluetooth | Wi-Fi | RFID | GPS | 1D Barcode Scanner | 2D Barcode Scanner | ANDROID

## Specifications

| Model | | MODAT-335A |
|---|---|---|
| Display | LCD Size | 3.5” TFT LCD (Sunlight Readable) |
| | Brightness (cd/m²) | 190 cd/m² |
| | Max Resolution | 240(H) x 320(V) QVGA |
| | Viewing Angle | 80/80/80/80 Deg. |
| | Touch Screen | 4-wire resistive type touch |
| System | CPU | TI Sitara AM3715 1GHz |
| | Operating System | Android 4.1.2 |
| | Memory | 4GB eMMC + 512MB SDRAM |
| | Storage | MicroSD slot |
| Communication | Wi-Fi | Wi-Fi 802.11a/b/g/n |
| | Bluetooth | Bluetooth® 4.0 |
| | Modem | WCDMA/HSDPA or GPRS |
| | GPS | GPS w/internal antenna |
| Data Collection | RFID | 13.56 MHz RFID supports ISO 15693 and 14443A/B compliant<br>UHF (optional): EPC Global Class1 Gen2 supports ISO/IEC 18000-6 Type C and at least 2m reading distance |
| | Barcode | 1D Laser/2D imager scan engine |
| | Camera | 5-megapixel CMOS camera with LED flash light |
| Indicator & Buttons | LED Indicator | Charging status LED<br>Wi-Fi enable/disable LED<br>3.5G/2.5G enable/disable LED |
| | Hot Keys | 2 x Barcode key<br>1 x Camera key |
| I/O Interface | Audio | 1 x Speaker |
| | | 1 x Headset / Built-in Mic-in |
| | Expansion | 1 x Mini USB Client 2.0 |
| | | 16-pin connector<br>(RS-232 / USB Host / USB Client) |
| Power | Power Adapter | Input: 100V AC to 240V AC ~ 50- 60Hz 0.2A<br>Output: 5V / 2.1A |
| | Battery | 3.7V 3000 mAh battery |
| Environment | Operating Temperature | -10°C~50°C |
| | Storage Temperature | -20°C ~ 60°C |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | 1.5M |
| | Environment Protection | IP 54 |
| | Certification | CE / FCC |
| Physical Characteristics | Dimension(LxWxH)(mm) | 218.5 x 81 x 46 |
| | Weight | 405 g |

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Cradle | MODAT-300-CR01-R10 | Charging cradle with USB Client |
| Battery Pack | 31603-000017-RS | 3.7V 3000 mAh battery |
| 16-pin Cable | 32024-001500-100-RS | Connect to USB Host, USB Client and RS-232 |
| Handle Grip | MODAT-335-GRIP-R10 | Removable handle grip can trigger 1D/2D barcode |

## Packing List

| Item | Part No. | Q'ty |
|---|---|---|
| Battery Pack | 31603-000017-RS | 1 |
| USB Cable | 32001-000300-200-RS | 1 |
| AC-DC Adapter | 63040-330010-000-RS | 1 |
| Headset | 30900-000003-RS | 1 |
| Stylus | 7Z000-6051D0320101-RS | 1 |
| MODAT-335 Standard Pouch | 46037-000200-RS | 1 |
| Handle Grip Pouch | 46037-000100-RS | 1 |

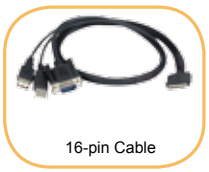
Cradle

USB Cable

Headset

Battery Pack

Stylus


16-pin Cable

Handle Grip

Standard Pouch

Handle Grip Pouch

## Ordering Information

| Part No. | | Description |
|---|---|---|
| Android 4.1.2 Operating System | MODAT-335-AD41-E-R10 | 3.5" TFT-LCD, Enterprise PDA with TI Sitara AM3715 CPU, UMTS 900/2100MHz & GSM 900/1800MHz, GPS, WiFi, Bluetooth, RFID reader, 1D/2D barcode Reader, 5-megapixel Camera, Android 4.1.2 OS, RoHS |
| | MODAT-335-1D-AD41-R10 | 3.5" TFT-LCD, Enterprise PDA with TI Sitara AM3715 CPU, 802.11a/b/g/n Wireless, Bluetooth, 1D Barcode Scanner, 5-megapixel Camera, Android 4.1 OS, RoHS |

# MODAT-100

## Mobile POS Terminal

EMV Level 1

### Features

- 3.5” TFT sunlight readable LCD touch screen
- Marvell® PXA 310 624 MHz CPU
- Windows® Embedded Handheld 6.5 pre-installed
- Built-in 32-channel GPS receiver
- Built-in smart card reader, magnetic stripe card reader and 2” thermal printer
- 1D laser barcode/optional 2D imager barcode reader for data collection
- Bluetooth, Wi-Fi and 3.5G/HSDPA wireless communication

### Specifications

| Model | | MODAT-100 |
|---|---|---|
| Display | LCD Size | 3.5" TFT LCD (Sunlight Readable) |
| | Brightness (cd/m²) | 190 cd/m² |
| | Max Resolution | 240 x 320 pixels QVGA |
| | Viewing Angle | 80/80/80/80 Deg. |
| | Touch Screen | 4-Wire Resistive Type Touch |
| System | CPU | Marvell® PXA 310 624 MHz |
| | Operation System | Windows® Embedded Handheld 6.5 |
| | Memory | 128 MB Flash + 256 MB SDRAM |
| | Storage | microSD Slot |
| Communication | Wireless LAN | Wi-Fi 802.11b/g |
| | Bluetooth | Bluetooth 2.1 + EDR |
| | 3.5G | WCDMA/HSDPA |
| | GPS | GPS w/internal antenna |
| Data Collection | Barcode | Built-in 1D Laser Engine and optional 2D imager Engine |
| | Camera | 5-megapixel CMOS Camera with LED Flash Light |
| Indicators & Buttons | LED Indicators | Charging/Barcode status LED<br>HSDPA status LED |
| | Hot Keys | 2 x Barcode Trigger |
| I/O Interface | Audio | 1 x Headset and 1 x Speaker |
| | Expansion | 16-pin connector (RS-232 / battery charging/ OTG-Host/ OTG-Client) |
| | | 2" Thermal Printer |
| | | Smart Card Reader Support |
| | | Magnetic Stripe Reader Support |
| Power | Power Adapter | Input: VAC:90 V~264 V<br>Output: 12 V/3 A |
| | Battery | 7.4V 1880 mAh battery |
| Environment | Operating Temperature | 0ºC ~ 50ºC |
| | Storage Temperature | -20ºC ~ 70ºC |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | 1.2 M |
| | Environmental Protection | IP 54 (Front Panel only) |
| | Certification | CE, FCC |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 230 x 84 x 54 |
| | Weight | 546 g |

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Cradle | MODAT-100-CR01-R10 | Charging cradle integrated one charging bay along with USB Host, USB Client and RS-232 I/0 ports |
| 16-pin Cable | 32024-001500-100-RS | 16-pin cable connected to USB Host, USB Client and RS-232 |
| Battery Pack | 31603-000014-RS | 7.4V 1880 mAh battery |
| Carrying Case | 7Z000-MODAT100POUCH-RS | Black, professional protection case with shutter strap for MODAT-100 |
| Car Holder | 19B00-000229-00-RS | MODAT-100 car holder with stand |
| Thermal Printer Paper | 5Z000-000165-RS | One thermal paper; 57MM*3.1CM*0.079TMM; |
| | 19N43-128001-00-00-RS | Five thermal paper per roll |
| microSD Card | 79D00-G001-006-RS | 1GB microSD card |
| | 79D00-G002-005-RS | 2GB microSD card |

## Packing List

| Item | Part No. | Q'ty | Description |
|---|---|---|---|
| Battery Pack | 31603-000014-RS | 1 | 7.4V 1880 mAh battery |
| Carrying Case | 7Z000-MODAT100POUCH-RS | 1 | Black, professional protection case with shutter strap for MODAT-100 |
| Power Adapter | 63000-FSP036RAB613-RS | 1 | FSP036-RAB613; VAC: 90V~264V; 12V/3A; 36W; PLUG Ψ1.35/Ψ3.5/NONE LOCK/LENGTH: 9.5MM; 1500MM; FSP |
| Stylus | 7Z000-MODAT100STYLUS-RS | 1 | |
| Headset | 30900-000001-RS | 1 | |

Battery Pack

Stylus

Power Adapter

Carrying Case

Cradle

Headset

16-pin Cable

Car Holder

Thermal Printer Paper

## Ordering Information

| Part No. | Description |
|---|---|
| MODAT-100-RFID-WB65-En-E-R11 | 3.5" TFT-LCD 190 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, HSDPA, 802.11b/g Wireless, Bluetooth,1D barcode scanner, RFID, Smart Card Reader, Windows® Embedded Handheld 6.5 OS, RoHS |
| MODAT-100-WB65-En-E-R11 | 3.5" TFT-LCD 190 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, HSDPA, 802.11b/g Wireless, Bluetooth, 1D barcode scanner, Smart Card Reader, Magnetic Stripe Reader, Windows® Embedded Handheld 6.5 OS, RoHS |
| MODAT-100-2D-WB65-En-E-R11 | 3.5" TFT-LCD 190 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, HSDPA, 802.11b/g Wireless, Bluetooth, 1D/2D Imager barcode scanner, Smart Card Reader, Magnetic Stripe Reader, Windows® Embedded Handheld 6.5 OS, RoHS |

# MODAT-200

## Order Entry PDA

### *Features*

- 667 MHz ARM11 CPU
- Built-in Windows® Mobile 6.5 OS/ Windows® CE 6.0 (optional)
- USB 1.1 Host/Client 2.0
- Built-in Wi-Fi and Bluetooth wireless communication
- 3.5” TFT resistive touch screen
- microSD slot

### *Specifications*

| Model | | MODAT-200 |
|---|---|---|
| Display | LCD Size | 3.5" TFT LCD |
| | Brightness (cd/m²) | 250 cd/m² |
| | Max. Resolution | 240 (H) x 320 (V) QVGA |
| | Viewing Angle | 80/80/80/80 Deg. |
| | Touch Screen | 4-Wire Resistive Type Touch |
| System | CPU | Samsung® 6410 ARM11 667MHz |
| | Operating System | Windows® Mobile 6.5 OS |
| | Memory | 128MB Flash + 128MB SDRAM |
| | Storage | microSD Slot |
| Communication | Wi-Fi | Wi-Fi 802.11b/g |
| | Bluetooth | Bluetooth 2.1 + EDR |
| Indicators & Buttons | LED Indicators | Message/battery/charging status LED<br>Wi-Fi/Bluetooth enable/disable LED |
| | Hot Keys | 1 x Rollng Key |
| I/O Interface | Audio | 1 x Headset and 1 x Speaker |
| | | Built-in Mic-in |
| | Expansion | 1 x Mini USB Host 1.1/Client 2.0 |
| Power | Power Adapter | Input: 100 V AC to 240 V AC ~ 50-60Hz 0.2A<br>Output: 5V/1A |
| | Battery | 3.7V 1800mAh battery<br>(built-in non-swappable) |
| Environment | Operating Temperature | -10˚C ~ 50˚C |
| | Storage Temperature | -20˚C ~ 70˚C |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | 1.5M |
| | Environmental Protection | IP 54 |
| | Certification | CE, FCC, BSMI |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 125 x 74 x 18 |
| | Weight | 200 g |

Hanger
The hanger is designed for optimal flexibility. Wherever there is a hook and hanger, the MODAT-200 can easily be used in various situations.
Stylus
Neck Strap Clip

The Neck Strap Clip is located at the bottom panel to allow the MODAT-200 to be taken up for service at the right side.

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Leather Protective Case | 7Z000-MODAT200POUCH-RS | Black, professional leather protective case for MODAT-200 |
| AC-DC Adapter | 63040-180005-000-RS | Input: 100 V AC to 240 V AC ~ 50-60Hz0.2A<br>Output: 5 V DC, 1 A (Max) |
| Cradle | MODAT-200-CR01-R10 | One to one charging cradle for MODAT-200 |

## Packing List

| Item | Part No. | Q'ty |
|---|---|---|
| Cradle | MODAT-200-CR01-R10 | 1 |
| Leather Protective Case | 7Z000-MODAT200POUCH-RS | 1 |
| USB Cable | 32001-000301-100-RS | 1 |
| AC-DC Adapter | 63040-180005-000-RS | 1 |
| Headset | 30900-000001-RS | 1 |
| Stylus | 7Z000-MODAT200STYLUS-RS | 1 |
| Hand Strap | 7Z000-MODAT200STRAP-RS | 1 |
| User's Manual CD ROM | 7B000-000548-RS | 1 |

USB Cable | AC-DC Adapter | Headset | Hand Strap | Leather Protective Case | Stylus | Cradle

## Ordering Information

| Part No. | Description |
|---|---|
| MODAT-200-CE60-En | 3.5" TFT-LCD 250 cd/m² QVGA Enterprise PDA with Samsung® 6410 ARM11 667MHz CPU,802.11b/g Wireless, Bluetooth, Windows CE 6.0 OS, RoHS |
| MODAT-200-WB65-En | 3.5" TFT-LCD 250 cd/m² QVGA Enterprise PDA with Samsung® 6410 ARM11 667MHz CPU,802.11b/g Wireless, Bluetooth, Windows Mobile 6.5 OS, RoHS |

# MODAT-328

## Stocktaking PDA

### *Features*

- 2.8” TFT LCD with resistive touch screen
- Marvell PXA 310 624 MHz CPU
- Built-in Windows® Embedded Handheld 6.5 OS
- Wi-Fi and Bluetooth wireless technology
- 5-megapixel camera with LED flash
- Supports Mifare (ISO 14443A), Felica (ISO 18092) and ISO 15693
- 1D/2D barcode reader
- Optional cradle with RS-232 and USB client port

## *Specifications*

| Model | | MODAT-328 |
|---|---|---|
| Display | LCD Size | 2.8" TFT LCD |
| | Brightness (cd/m²) | 240 cd/m² |
| | Max Resolution | 240(H) x 320(V) QVGA |
| | Viewing Angle | 70/50/70/70 Deg. |
| | Touch Screen | 4-wire resistive type touch |
| System | CPU | Marvell® PXA 310 624MHz |
| | Operating System | Windows® Embedded Handheld 6.5 |
| | Memory | 256 MB Flash + 128 MB SDRAM |
| | Storage | microSD Slot |
| Communication | Wi-Fi | Wi-Fi 802.11b/g |
| | Bluetooth | Bluetooth 2.1 + EDR |
| Data Collection | RFID | 13.56 MHz RFID reader supports ISO15693 and 14443A/B compliant or ISO 14443A and Felica compliant |
| | Barcode | 1D/2D Imager Scan Engine |
| | Camera | 5-megapixel CMOS camera with LED flashlight |
| Indicators & Buttons | LED Indicators | Charging status LED<br>Wi-Fi / enable/disable LED |
| | Hot Keys | 3 x Barcode key<br>1 x Camera key |
| I/O Interface | Audio | 1 x Headset and 1 x Speaker |
| | | Built-in Mic-in |
| | Expansion | 1 x Mini USB Client 2.0 |
| Power | Power Adapter | Input: 100 V AC to 240 V AC ~ 50-60Hz 0.2A<br>Output: 5 V/2.1A |
| | Battery | 3.7V 1880 mAh battery |
| Environment | Operating Temperature | -10°C ~ 50°C |
| | Storage Temperature | -20°C ~ 60°C |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | 1.5M |
| | Environmental Protection | IP 54 (Front panel) |
| | Certification | CE, FCC |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 172 x 55 x 31 |
| | Weight | 245 g |

## Optional Accessory List

| Item | Part No. | Description |
|---|---|---|
| Cradle | MODAT-300-CR01-R10 | Charging cradle with USB Client |
| Battery Pack | 31603-000015-RS | 3.7V 1880 mAh battery |
| Battery Pack - L | 31603-000017-RS | 3.7V 3000 mAh battery<br>(Note: Please confirm if purchasing the Battery Pack - L is necessary or not.) |
| Belt Clip Case | 7Z000-MODAT-328POUCH-RS | Black, MODAT-328 professional belt clip case |
| 16-pin Cable | 32024-001500-100-RS | Connects to USB Host, USB Client and RS-232 |
| Battery Pack - L Cover | 19N41-209001-00-00-A-RS | The Cover of Battery Pack - L (Note: Please select this cover for the first time purchasing the Battery Pack - L.) |

## Packing List

| Item | Part No. | Q'ty | Description |
|---|---|---|---|
| Battery Pack | 31603-000015-RS | 1 | 3.7V 1880 mAh Battery |
| Belt Clip Case | 7Z000-MODAT-328POUCH-RS | 1 | Black, MODAT-328 Professional Belt Clip Case |
| USB Cable | 32001-000300-200-RS | 1 | |
| AC-DC Adapter | 63040-330010-000-RS | 1 | Vin: 90~264VAC; 10.5W, (NO LOAD 0.1W)<br>Vout: 5VDC; USB;CCL; RoHS |
| Headset | 30900-000001-RS | 1 | |
| Stylus | 7Z000-6051D0320101-RS | 1 | |
| Hand Strap | 46035-000300-RS | 1 | |
| User's Manual CD ROM | 7B000-000755-RS | 1 | |

## Ordering Information

| Part No. | Describtion |
|---|---|
| MODAT-328-WB65-En-R12 | 2.8" TFT-LCD 240 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, 802.11b/g Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 5-megapixel Camera, Windows® Embedded Handheld 6.5 OS, RoHS |
| MODAT-328-1D-WB65-En | 2.8" TFT-LCD 240 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, 802.11b/g Wireless, Bluetooth, 1D Barcode Scanner,Windows® Embedded Handheld 6.5 OS, RoHS |

# Automotive PC Matrix

| Model | | iKarPC | iKarPC-Lite | VTT-1000 | VTT-1000-WiFi | AVL-3000 | AVL-3100 | AVL-1100 |
|---|---|---|---|---|---|---|---|---|
| Display | LCD Size | 8" TFT-LCD (sunlight readable) | 7" TFT-LCD | 3.5" TFT-LCD | 3.5" TFT-LCD | N/A | N/A | N/A |
| | Brightness (cd/m²) | 600 cd/m² high brightness | 500 cd/m² high brightness | 450 cd/m² | 450 cd/m² | N/A | N/A | N/A |
| | Max Resolution | 800 x 480 pixels WVGA | 800 x 480 pixels WVGA | 320 x 240 pixels QVGA | 320 x 240 pixels QVGA | N/A | N/A | N/A |
| | Viewing Angle | 60/60/50/50 Deg. | 60/70/70/70 Deg. | 50/55/60/60 Deg. | 50/55/60/60 Deg. | N/A | N/A | N/A |
| | Touch Screen | 5-wire resistive type touch | Projective capacitive type touch | 4-wire resistive type touch | 4-wire resistive type touch | N/A | N/A | N/A |
| System | CPU | Intel® Atom™ Z510 1.1GHz | TI ARM Cortex-A8 AM3715 1GHz | Samsung S3C2416 ARM9 400 MHz | Samsung S3C2416 ARM9 400 MHz | Intel® Atom™ N2600 1.6GHz | Mobile Intel® Celeron® 847E processor 1.1GHz | Freescale i.MX6 1.2GHz quad-core |
| | Chipset | Intel® US15WP | N/A | N/A | N/A | Intel® NM10 | Intel® QM77 | N/A |
| | Operating System | Microsoft® Windows® XP Embedded | Android 4.1 | Microsoft® Windows® CE 6.0 | Microsoft® Windows® CE 6.0 | Windows® Embedded Standard 7 E | Windows Embedded Standard 7 E | Android 4.2 |
| | Memory | On-board 1GB DDR2 533 MHz | On-board 4GB iNAND flash and 512MB DDR SDRAM | On-board 128MB DDR2 133MHz | On-board 128MB DDR2 133MHz | On-board 2GB DDR3 | 2GB DDR3 SO-DIMM | 1GBD |
| | Storage | 4GB CompactFlash® SD card slot | Built-in SD card slot (supports SD 2.0, max 32GB) | 256MB NAND flash microSD card slot | 256MB NAND flash microSD card slot | 1 x Built-in 16GB SATA SSD 1 x SDXC slot for data storage | 1 x Built-in 16GB SATA SSD 1 x SDXC slot for data storage (Max. 32GB) | 8GB iNAND flash SD Card Slot |
| Communication | Wireless LAN | Wi-Fi 802.11b/g/n | Wi-Fi 802.11b/g/n | N/A | Wi-Fi 802.11b/g | Wi-Fi 802.11b/g/n | Wi-Fi 802.11b/g/n | Wi-Fi 802.11 a/b/g/n |
| | Bluetooth | Bluetooth 2.1+ EDR (Class I) | Bluetooth 2.1+ EDR (Class I) | N/A | N/A | Bluetooth V2.0+EDR (Class I) | BT2.0 (Optional BT4.0) | Yes |
| | Data Rate | WCDMA/HSUPA | WCDMA/HSDPA or GPRS | GSM/GPRS | N/A | WCDMA/HSUPA or GPRS | WCDMA/HSUPA OR GPRS (Optional Dual Module) | WCDMA/HSUPA |
| | GPS | GPS w/ external antenna | GPS w/ external antenna | GPS w/ External / External Antenna | GPS w/ External / External Antenna | GPS w/ external antenna | U-Blox LEA-6S on-board module (optional LEA-6N GPS+GLONASS) | GPS w/ external antenna |
| Multimedia | Audio | 1 x Line-in 1 x Line-out 1 x 3W Speaker | 1 x Line-out (R+L) (3-pin) 1 x Mic-in (3-pin) | 1 x Line-out 1 x 1.5W Speaker | 1 x Line-out 1 x 1.5W Speaker | 1 x Mic-in 1 x Line-out | 1 x Mic-in 1 x Line-out | 1 x Mic-in 1 x Line-out |
| Data Collection | RFID | N/A | 13.56MHz RFID Reader Supports ISO 14443A (Mifare) ISO 14443B (Felica) | N/A | N/A | ISO 18000-6C UHF RFID (optional) | ISO 18000-6C UHF RFID (Optional) | N/A |
| | Video Capturing | N/A | N/A | N/A | N/A | 4-channel video input with hardware compression support | 4-channel video input with software compression support | N/A |
| | Camera | 0.3-megapixel CMOS Camera | 2-megapixel CMOS Camera | N/A | N/A | N/A | N/A | N/A |
| LED Indicators & Buttons | Indicators | Wi-Fi/Bluetooth/ HDD/3.75G/DVB-T/ Power Status LED | 3.5G/Wi-Fi/BT/Power Status LED | Power/GPS/2.5G Status LED | Power/GPS/2.5G Status LED | Power LED | Power LED | Power LED, 3.75G, Wi-Fi Indicator |
| | Hot Keys & Buttons | F1~F6 function key, Navigation key, Power button | 4 x function key, Power button | 7 x Programmeable keys, Power button, Reset button | 7 x Programmeable keys , Power button, Reset button | Power button | Power button | Power On / Off button |
| I/O Interface | USB | 2 x USB 2.0 Full Speed | 2 x USB 2.0 Full Speed | 1 x Mini USB 1.1 | 1 x Mini USB 1.1 | 4 x USB 2.0 | 4 x USB 2.0 , 2 x USB 3.0 | 3 x USB 2.0 |
| | Serial | 1 x DB-9 OBD-II 1 x DB-9 RS-232/422/485 (Software selectable w/ 5V DC) | 1 x OBD-II (7-pin) 1 x USB (4-pin) 1 x RS-232 (9-pin) | 1 x OBD-II 1 x RS-232 | 1 x OBD-II 1 x RS-232 | 1 x OBD-II 6 x COM port: DB-9 (COM1), RS-422/485 (COM4, 4-pin), DB-37 (COM7~COM10) | 1 x OBD-II with CAN Bus 2 x RS-232 Standard 1 x RS-422, RS-485 | 2 x 4-pin isolated RS-232/422/485 w/ selection SW |
| | LAN | 1 x 10/100/1000 Mbps GbE RJ-45 | 1 x 10/100/1000 Mbps GbE (4-pin) | N/A | N/A | 1 x 10/100/1000 Mbps GbE RJ-45 | 2 x 10/100/1000 Mbps GbE RJ-45 | 1 x 10/100/1000 Ethernet |
| | VGA | N/A | N/A | N/A | N/A | 1 x VGA (supports up to 1920x1200) | 1 X VGA | 1 x VGA out |
| | CAN | N/A | 1 x CAN-bus 2.0B (2-pin) | N/A | 1 x CAN-bus 2.0B | N/A | N/A | 1 x Isolation CAN-bus 2.0B |
| | Remote Control | Yes | N/A | N/A | N/A | N/A | N/A | N/A |
| | Digital I/O | N/A | 2 Input (3-pin) / 2 Output (3-pin) | 2 Input / 2 Output | 2 Input / 2 Output | 4 Input / 4 Output | 4 x DI, 4 x DO | 2 x isolation DI/DO |
| | HDMI | N/A | N/A | N/A | N/A | 1 x HDMI | 1 x HDMI | 1 x HDMI out |
| Power | Cigarette Lighter Power | Cigarette Lighter Power Cable DC 9~30V | | | | | | |
| | ACC Power | ACC power on/off mode with software configurable delay time | ACC power on/off mode with software configurable delay time | N/A | N/A | ACC power on/off mode with software configurable delay time | Auto/ Manual/ Manual w/ ACC | ACC power on/off mode with software configurable delay time |
| Environment | Operating Temperature | -20˚C to +60˚C | -20˚C to +60˚C | -20˚C to +70˚C | -20˚C to +70˚C | -20˚C to +70˚C | -20˚C to +70˚C | 0˚C~60˚C |
| | Storage Temperature | -30˚C to +70˚C | -30˚C to +70˚C | -30˚C to +80˚C | -30˚C to +80˚C | -30˚C to +80˚C | -30˚C to +80˚C | -20˚C~70˚C |
| | Humidity | 5%~95%, non-condensing | | | | | | |
| | Drop Survival | 1M | 1M | 1M | 1M | N/A | N/A | N/A |
| | Environmental Protection | IP 54 compliant front panel (water, dust and splash resistant) | | | | N/A | N/A | IP 53 |
| | Certifications | CE/FCC/e-MARK/ISO7637 | | | | | | CE, FCC, eMark |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 261 x 162 x 44 | 210 x 154 x 28 | 128 x 89 x 32 | 128 x 89 x 32 | 200 x 150 x 76 | 200 x 150 x 76 | 255 x 115 x 42mm |
| | Net Weight | 1.7kg | 0.8kg | 0.17kg | 0.17kg | 2.0kg | 2015 g | 670g |

# iKarPC-08A

## Vehicle Computer Series

COMPUTEX TAIPEI 2011 BEST CHOICE

### *Features*

- 8" TFT sunlight readable LCD touch screen
- Intel® Atom™ Z510 1.1 GHz processor
- Pre-installed Windows® XP Embedded
- Built-in HSUPA/GPRS/GSM, Wi-Fi and Bluetooth
- Built-in 32-channel GPS receiver
- Supports On-Board Diagnostics (OBD)

### *Specifications*

3.75G/HSUPA | Bluetooth | Wi-Fi | Fanless | Operating Temperature | High Brightness | Touchscreen | Camera | OBD-II

| Model | | iKarPC |
|---|---|---|
| Display | LCD Size | 8" TFT-LCD (Sunlight readable) |
| | Brightness (cd/m²) | 600 cd/m² High Brightness |
| | Max Resolution | 800 x 480 pixels WVGA |
| | Viewing Angle | 60/60/50/50 Deg. |
| | Touch Screen | 5-wire resistive type touch |
| System | CPU | Intel® Atom™ Z510 1.1 GHz |
| | Chipset | Intel® US15WP |
| | Operating System | Microsoft® Windows® XP Embedded |
| | Memory | On-board 1 GB DDR2 533 MHz |
| | Storage | 4 GB CompactFlash®<br>SD Card Slot |
| Communication | Wireless LAN | Wi-Fi 802.11b/g/n |
| | Bluetooth | Bluetooth V2.0+ EDR (Class 1) |
| | Modem | WCDMA/HSUPA |
| | GPS | GPS |
| Multimedia | Audio | 1 x Line-in<br>1 x Line-out<br>1 x 3 W Speaker |
| | Camera | 0.3-megapixel CMOS Camera |
| LED Indicators & Buttons | Indicators | Wi-Fi/Bluetooth/HDD/3.75G/DVB-T/Power Status LED |
| | Hot Key & Buttons | F1~F6 Function Key, Direction Key, Power Button |
| I/O Interface | USB | 2 x USB 2.0 |
| | Serial | 1 x DB-9 OBD-II<br>1 x DB-9 RS-232/422/485 (Software selectable w/ 5V DC) |
| | LAN | 1 x 10/100/1000 Mbps GbE RJ-45 |
| Power | Cigarette Lighter Power | Cigarette Lighter Power Cable DC 9~30V |
| | ACC Power | Manual power mode and ignition detection supported ACC power on/off mode with software configurable delay time |
| Environment | Operating Temperature | -20˚C ~ +60˚C |
| | Storage Temperature | -30˚C ~ +70˚C |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | 1 M |
| | Environmental Protection | IP54 compliant front panel (Water, dust and splash resistant) |
| | Certification | CE/FCC/e-Mark/ISO7637 |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 261 x 162 x 44 |
| | Net Weight | 1.7kg |

## Optional Accessory List

| Item | Part Number | Description |
|---|---|---|
| Power Adapter | IVIPOWER-4PIN-R10 | Power Adapter, PFC; Vin:90~264VAC; 60W; Vout: 12VDC; Din 4Pin/lock; CCL; RoHS |
| Bracket | iKarPC-W08A-MK01-R10 | iKarPC 100 x 100 VESA mount kit |
| Bracket | iKarPC-W08A-MK02-R10 | iKarPC ram-mount 100 x 100 VESA mount kit |

## Packing List

| Item | Part Number | Q'ty |
|---|---|---|
| Remote Controller | 7Z000-SLPCB004-RS | 1 |
| GPS/3.75G Integrate Antenna | 32506-000100-100-RS | 1 |
| ACC Power Cable | 32002-001900-100-RS | 1 |
| Cigarette Lighter Power Cable | 32002-004000-100-RS | 1 |
| OBD-II Cable | 32025-000300-100-RS | 1 |
| J1939 Cable | 32025-000400-100-RS | 1 |
| Uesr's Manual CD-ROM | 7B000-000959-RS | 1 |
| IEI One Key Recovery CD | 7B000-000781-RS | 1 |

## Ordering Information

| Part Number | Description |
|---|---|
| IKARPC-W08A-510-HU-R12 | 8.0" TFT-LCD 600 cd/m² WVGA In Vehicle PC with Intel® Atom™ Z510 1.1GHz CPU, 1GB SDRAM, 802.11b/g/n Wireless, Bluetooth, HSUPA, OBD-II, Touch screen, 0.3-megapixel Camera, XPE OS, 4GB CF, RoHS |
| IKARPC-W08A-510-HW-R12 | 8.0" TFT-LCD 600 cd/m² WVGA In Vehicle PC with Intel® Atom™ Z510 1.1GHz CPU, 1GB SDRAM, 802.11b/g/n Wireless, Bluetooth, HUAWEI HSUPA, OBD-II, Touch screen, 0.3-megapixelCamera, XPE OS, 4GB CF, RoHS |

# iKarPC-Lite

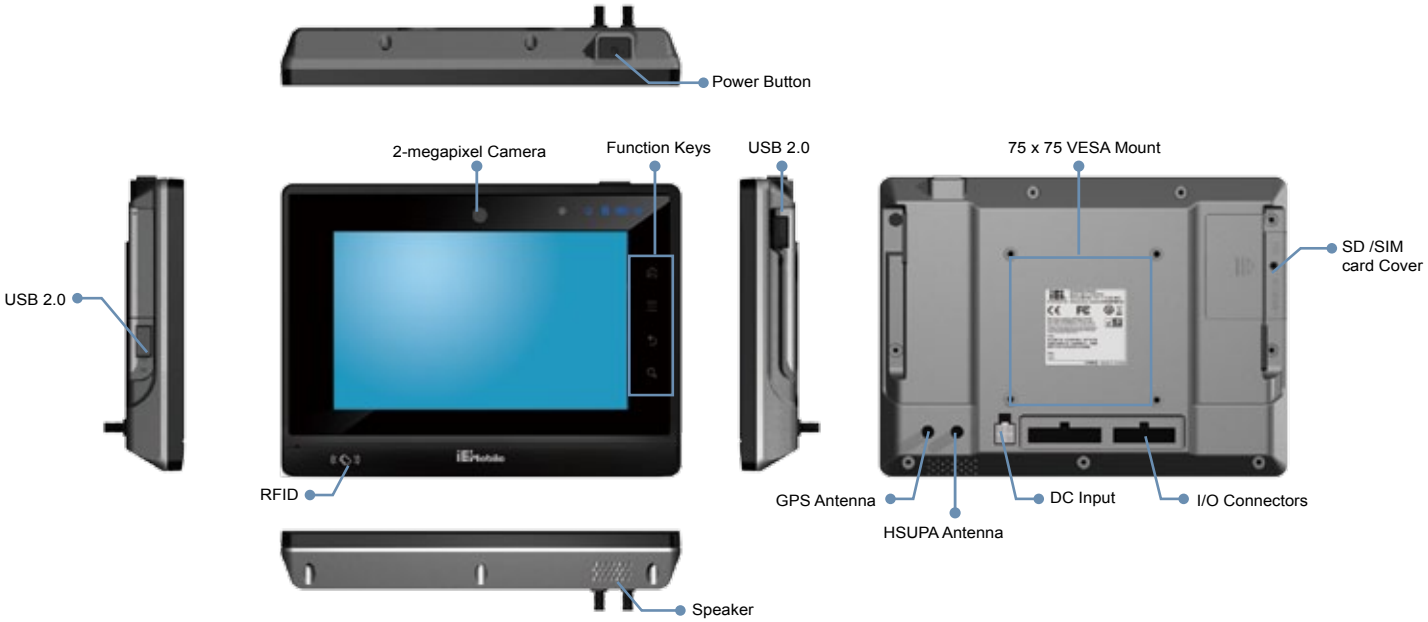
## Vehicle Computer Series

### *Features*

- 7” TFT sunlight readable TFT LCD with projective capacitive touchscreen
- TI ARM Cortex-A8 AM3715 1GHz
- Pre-installed Android 4.1 operating system
- Built-in HSUPA/GPRS/GSM, Wi-Fi and Bluetooth
- Built-in GPS receiver
- Supports On-Board Diagnostics: one CAN 2.0B or OBD-II
- On-board RFID with antenna

## *Specifications*

| Model | | iKarPC-Lite |
|---|---|---|
| Display | LCD Size | 7” TFT LCD with LED backlight |
| | Brightness (cd/m²) | 500 cd/m² high brightness |
| | Max Resolution | 800 x 480 pixels WVGA |
| | Viewing Angle | 60/70/70/70 |
| | Touch Screen | Projective capacitive type |
| System | CPU | TI ARM Cortex A8 AM3715 1GHz |
| | Operating System | Android 4.1.2 |
| | Memory | On-board 4GB iNAND flash and 512 MB DDR SDRAM |
| | Storage | Built-in SD card slot<br>(supports SD 2.0, max. 32GB) |
| Communication | Wireless LAN | Wi-Fi 802.11b/g/n |
| | Bluetooth | Bluetooth® 2.1+ EDR (Class I) |
| | Data Rate | WCDMA/HSDPA or GPRS |
| | GPS | GPS w/ external antenna |
| Multimedia | Audio | 1 x Line out (R+L) (3-pin)<br>1 x Mic in (3-pin) |
| Data Collection | RFID | 13.56MHz ISO14443 A/B<br>Read-Write Capable<br>ISO14443A (Mifare)<br>ISO14443B (Felica) |
| | Camera | 2-megapixel CMOS camera |
| LED Indicators & Buttons | Indicators | 3.5G/Wi-Fi/BT/Power status LED |
| | Hot Keys & Buttons | 4 x Function keys |
| I/O Interface | USB | 2 x USB 2.0 Full Speed |
| | Serial | 1 x OBD-II (7-pin)<br>1 x USB (4-pin)<br>1 x RS-232 (9-pin) |
| | LAN | 1 x 10/100/1000 Mbps GbE (4-pin) |
| | CAN | 1 x CAN 2.0B (2-pin) |
| | Digital I/O | 2-bit input (3-pin), 2-bit output (3-pin) |
| Power | Cigarette Lighter Power | Cigarette lighter power cable, DC 9~36V |
| | ACC Power | ACC power on/off mode with software configurable delay time |
| Environment | Operating Temperature | -20ºC to +60ºC |
| | Storage Temperature | -30ºC to +70ºC |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | 1M |
| | Environmental Protection | IP 54 compliant front panel<br>(water, dust and splash resistant) |
| | Certifications | CE/FCC/e-MARK/ISO7637 |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 210 x 154 x 28 |
| | Net Weight | 0.8kg |

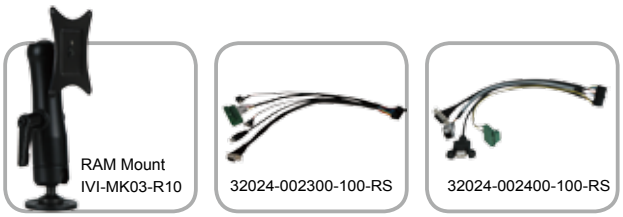



## Optional Accessory List

| Item | Part Number | Description |
|---|---|---|
| Power Adapter | IVIPOWER-4PIN-R10 | Power Adapter; 63000-FSP040DGAA1107-RS + Switching Cable 32002-005100-100-RS |
| Cigarette Lighter Power Cable | 32002-004000-100-RS | Round Cable; Power Cable; 2;1000MM; 18AWG;<br>(A) Cigarette Lighter (10A 250V) + LED;<br>(B) Power DIN 4PIN MALE + LOCK; RoHS |
| RAM Mount | IVI-MK03-R10 | 138mm 75x75 VESA mount stand |
| | IVI-MK04-R10 | 286mm 75x75 VESA mount stand |
| 20 pin I/O Cable | 32024-002400-100-RS | 300MM; 24AWG;<br>(A) TERMINAL BLOCK 3P P=5.08; (B) USB A TYPE FEMALE+2 NUT;<br>(C) PCB JACK:RJ45 8P8C; (D) D-SUB 9P MALE;<br>(E) MOLEX 5557-2000 P=3.0;ONE PCS PKG W/ LABEL |
| 24 pin I/O Cable | 32024-002300-100-RS | 300MM; 22AWG;<br>(A) TERMINAL BLOCK 8P P=5.08; (B) PHONE JACK 3.5_3P+NUT;<br>(C) PHONE JACK 3.5_5P+NUT; (D) RCA JACK,WHITE;<br>(E) D-SUB 9P MALE; (F) MOLEX 43025-2400 P=3.0; ONE PCS PKG W/ LABEL |

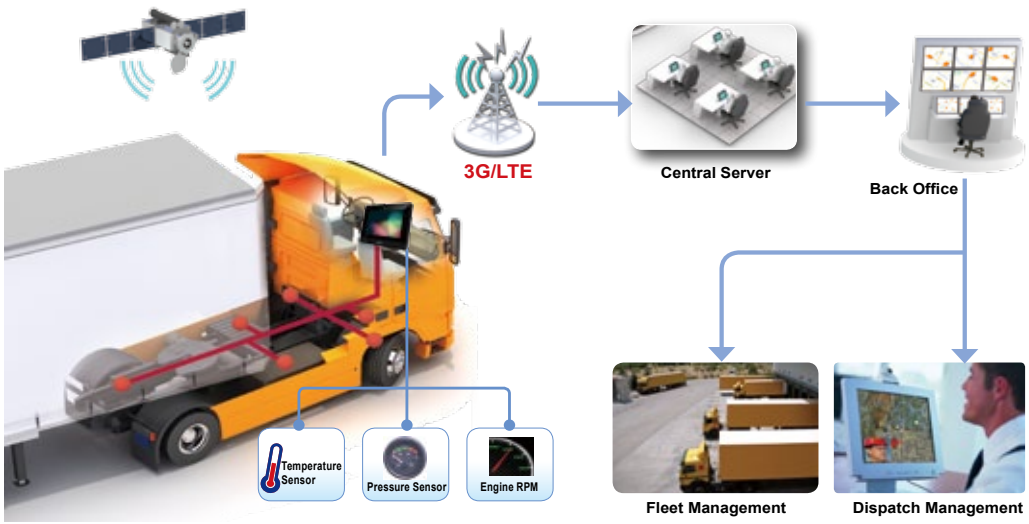
## Packing List

| Item | Part Number | Q'ty |
|---|---|---|
| 3.75G+GPS Antenna | 32506-000100-100-RS | 1 |
| ACC Power Cable | 32002-001900-100-RS | 1 |
| CD-ROM | 7B000757-RS | 1 |




## Ordering Information

| Part Number | Description |
|---|---|
| IKARPC-07A-A8-R10 | 7" 500 cd/m² In-Vehicle Panel PC with TI Cortex-A8 AM3715 Processor, 1GHz , 4GB iNAND flash, 512 MB DDR SDRAM, OBD-II, HSUPA , GPS, Wi-Fi b/g/n, BT 2.1, 2-megapixel Camera, RoHS |



# VTT-1000 Vehicle Tracking Terminal

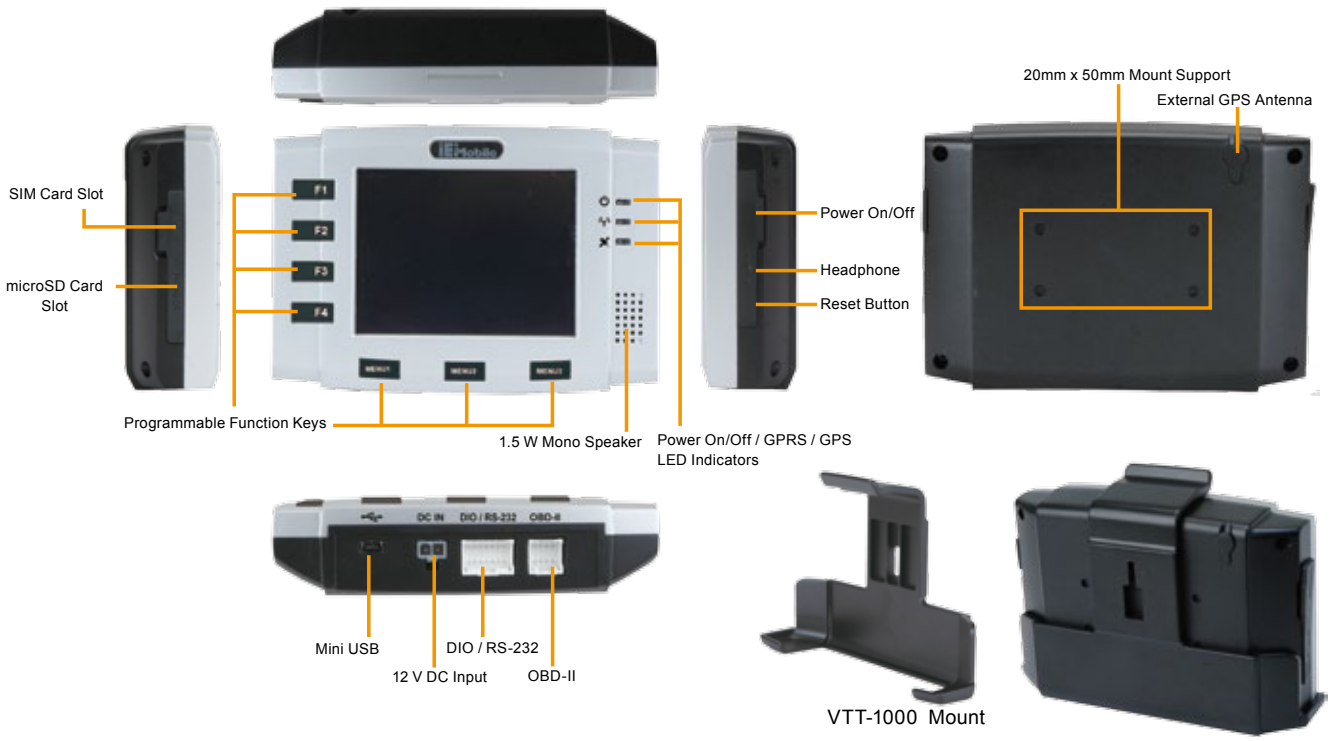
# VTT-1000-WiFi Vehicle Tracking Terminal

## *Features*

- 3.5” TFT LCD touch screen
- Embedded with ARM9 400MHz CPU
- Pre-installed Windows® CE 6.0
- Built-in GSM/GPRS and antenna
- SiRF Star III 20-channel GPS receiver
- Supports On-Board Diagnostics (OBD)

## *Specifications*

| Model | | VTT-1000 | VTT-1000-WiFi |
|---|---|---|---|
| Display | LCD Size | 3.5” TFT-LCD | |
| | Brightness (cd/m²) | 450 cd/m² | |
| | Max. Resolution | 320 x 240 pixels QVGA | |
| | Viewing Angle | 50/55/60/60 Deg. | |
| | Touch Screen | 4-wire Resistive Type Touch | |
| System | CPU | Samsung S3C2416 ARM9 400 MHz | |
| | Operating System | Microsoft® Windows® CE 6.0 | |
| | Memory | On-board 128MB DDR2 133MHz | |
| | Storage | 256MB NAND FLASH<br>microSD Card Slot | |
| Communication | Modem | GSM/GPRS | |
| | GPS | GPS w/ External Antenna | |
| | Wi-Fi | N/A | 802.11b/g |
| Multimedia | Audio | 1 x Line-out, 1 x 1.5W Speaker | |
| LED Indicators & Buttons | Indicators | Power/GPS/2.5G Status LED | |
| | Hot Keys | 7 x Programmable Keys , Power Button, Reset Button | |
| I/O Interface | USB | 1 x Mini USB 1.1 | |
| | Serial | 1 x DB-9 OBD-II,<br>1 x RS-232 | 1 x CAN-bus 2.0B |
| | Digital I/O | 2-bit input, 2-bit output | |
| Power | Cigarette Lighter Power | DC 9-30V | |
| Environment | Operating Temperature | -20˚C to +70˚C | |
| | Storage Temperature | -30˚C to +80˚C | |
| | Humidity | 5%~95%, Non-Condensing | |
| | Drop Survival | 1M | |
| | Environmental Protection | IP 54 compliant front panel<br>(water, dust and splash resistant) | |
| | Certifications | CE/FCC/e-MARK/ISO7637 | |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 128 x 89 x 32 | |
| | Net Weight | 0.17kg | |




## Model Variations

| Part No. | WiFi | Modem | GPS | OBD-II | CAN-bus 2.0 |
|---|---|---|---|---|---|
| VTT-1000-T35A/128MB-00-R10 | NA | GSM/GPRS | Yes | Yes | NA |
| VTT-1000-WiFi-R10 | Yes | GSM/GPRS | Yes | NA | Yes |

## Optional Accessory List

| Item | Part Number | Description |
|---|---|---|
| Bracket | VTT-1000-MT01-R10 | VTT-1000 Mounting Kit |
| AC Adapter | IVIPOWER-2PIN-R10 | Power Adapter 63000-FSP040DGAA1107-RS + Switching Cable 32002-005000-100-RS |

## Packing List

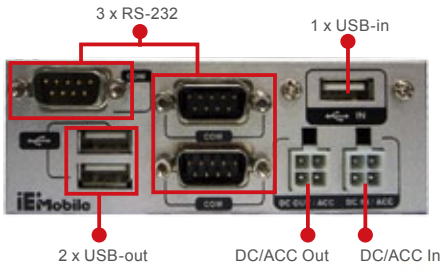
| Item | Part Number | Q'ty |
|---|---|---|
| DIO and RS-232 Cable | 32016-000300-100-RS | 1 |
| OBD-II Cable | 32016-000400-100-RS | 1 |
| GPS Antenna | 32502-000200-100-RS | 1 |
| Cigarette Lighter Power Cable | 32002-004600-100-RS | 1 |
| Uesr's Manual CD-ROM | 7B000-000689-RS | 1 |

## Ordering Information

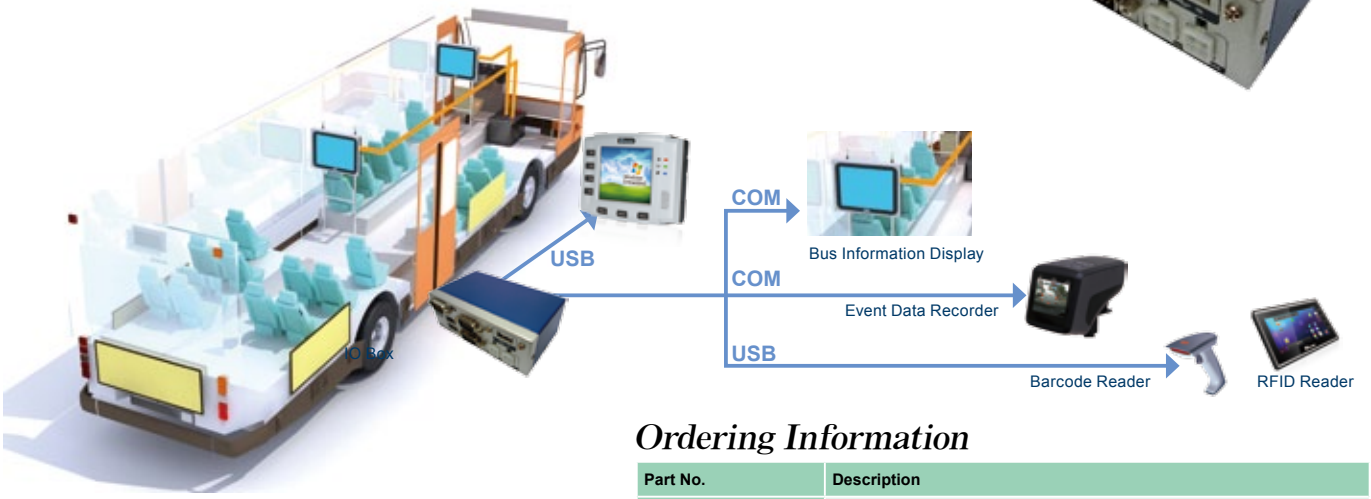
| Part Number | Description |
|---|---|
| VTT-1000-T35A/128MB-00-R10 | 3.5" 450cd/m² QVGA Fanless Vehicle Computer with ARM S3C2416X40-Y640 400MHz CPU, 128MB SDRAM, GSM/GPRS, OBD-II, GPS, without AC Adapter, RoHS |
| VTT-1000-WiFi-R10 | 3.5" 450cd/m² QVGA Fanless Vehicle Computer with ARM S3C2416X40-Y640 400MHz CPU, 128MB SDRAM, GSM/GPRS, Wi-Fi, CAN-bus 2.0B, GPS, without AC Adapter, RoHS |

# IO BOX

The multi-purpose IO Box is designed for the in-vehicle series, to expand application possibilities. The IO Box offers additional RS-232 ports, and USB input and output ports. It can be connected to an in-vehicle device such as the iKarPC series, VTT-1000, and AVL series.




- 3 x RS-232
- 2 x USB output
- 1 x USB input




## Ordering Information

| Part No. | Description |
|---|---|
| VTT-1000-IO-R10 | IO expansion box with three RS-232, two USB output and one USB input |

# OBDII BOX

The OBDII Box is designed as an optional accessory that can be connected to a system (such as the IEIMobile in-vehicle series) through USB and access diagnostic information from vehicles. It supports OBD-II protocol.

- Vehicle On-Board Diagnostics
- Supports OBD-II protocol
- Through USB to a car PC

## Ordering Information

| Part No. | Description |
|---|---|
| VTT-1000-OBDII-USB-R10 | Box with OBD-II protocol support |

# AVL-3000

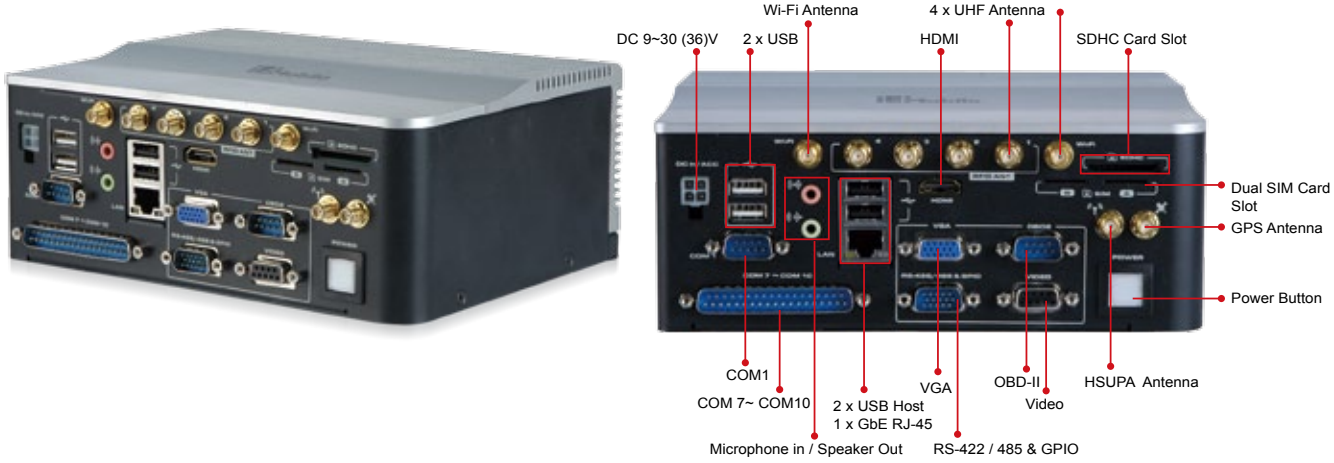
## Advanced Auto Data Server

### *Features*

- Intel® Atom™ N2600 1.6GHz CPU
- Powered by Windows® Embedded Standard 7 E (WES7E)
- Built-in 2.5” 16 GB SATA SSD
- Built-in Wi-Fi, Bluetooth, HSUPA, and GPS
- Built-in VGA Output and NTSC/PAL/SECAM Video Capture
- Supports On-Board Diagnostics (OBD)
- Optional Dual SIM
- Optional UHF RFID reader module

### *Specifications*

| Model | | AVL-3000 |
|---|---|---|
| System | CPU | Intel® Atom™ N2600 1.6GHz processor |
| | Chipset | Intel® NM10 |
| | Operating System | Windows® Embedded Standard 7 E (WES7E) |
| | Memory | 2GB 1333 MHz DDR3 |
| | Storagy | 1 x Built-in 16GB 2.5” SATA SSD |
| | | 1 x SDXC Slot for data storage |
| Communication | Wireless LAN | 802.11b/g/n |
| | Bluetooth | Bluetooth V2.0+EDR (class I) |
| | 3.75G | HSUPA/UMTS-800/850/900/1900/2100 MHz |
| | | Quad-band EDGE/GPRS |
| | | GSM-850/900/1800/1900 MHz |
| | | Dual-band EV-DO/CDMA |
| | GPS | GPS |
| | | Supports single module dual SIM |
| Data Collection | RFID | Read-Write Capable<br>ISO18000-6C UHF module<br>ETSI/FCC |
| Multimedia | Audio | 1 x MIC IN<br>1 x Line-out |
| | Camera | 4 x Channel camera D1 120FPS |
| LED Indicator | | 1 x Power LED |
| Power | Power Input | Cigarette lighter power cable<br>DC 9~30 (36)V |
| | Vehicle Power | ACC Power Cable |
| I/O Interface | | 4 x USB<br>1 x OBD-II<br>6 x COM port: DB-9 (COM1),<br>RS-422/485 (COM4, 4-PIN),<br>DB-37 (COM7~COM10)<br>1 x GbE RJ-45 LAN<br>1 x VGA support up to 1920 x 1200<br>4 x VIDEO IN<br>1 x 8-bit Digital I/O (selectable by software)<br>4 x DI<br>4 x DO<br>1 x HDMI |
| Environment | Operating Temperature | -20°C~70°C |
| | Storage Temperature | -30°C ~80°C |
| | Humidity | 5%~95%, non-condensing |
| | Drop Survival | ISO 16754 |
| | Certification | CE/FCC/e-Mark |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 200 x 150 x 76 |
| | Weight | 2kg |




## Optional Accessory List

| Item | Part Number |
|---|---|
| Cigarette Lighter Power Cable | 32002-004000-100-RS |
| J1939 Cable | 32025-000400-100-RS |
| UHF RFID Antenna w/Cable (PATCH Antenna 915MHZ) | AVL-2000PLUS-FCC01-R10 |
| UHF RFID Antenna w/Cable (PATCH Antenna 867.5MHZ) | AVL-2000PLUS-ETSI01-R10 |
| Power Adapter | IVIPOWER-4PIN-R10 |

## Packing List

| Item | Part Number | Quantity |
|---|---|---|
| GPS/3.75G Integrate Antenna | 32506-000100-100-RS | 1 |
| Wi-Fi Antenna | 32505-000400-100-RS | 2 |
| ACC Power Cable | 32002-001900-100-RS | 1 |
| User Manual CD-ROM | 7B000-000969-RS | 1 |
| IEI One Key Recovery CD | 7B000-000781-RS | 1 |
| Video Capture | 32007-001400-100-RS | 1 |
| OBDII | 32025-000300-100-RS | 1 |

## Ordering Information

| Part No. | Description |
|---|---|
| AVL-3000-N26-R10 | Vehicle PC Box with Intel® Atom™ N2600 1.6GHz CPU, WES7E OS, 2GB SDRAM, 16GB 2.5" SSD, 802.11b/g/n Wireless, HSUPA, OBD-II, GPS, RoHS |
| AVL-3000-N26-HC-R20 | In Vehicle PC Box with Intel® Atom™ Cedarview-M N2600 1.6GHz CPU, 2GB SDRAM, GbE LAN, 802.11b/g/n Wireless, Bluetooth, Qualcomm HSUPA, GPS, OBD-II, 4CH UHF RFID, 4CH HW compression Video Capture, RoHS |

# AVL-3100

## Advanced Auto Data Server

New

## Features

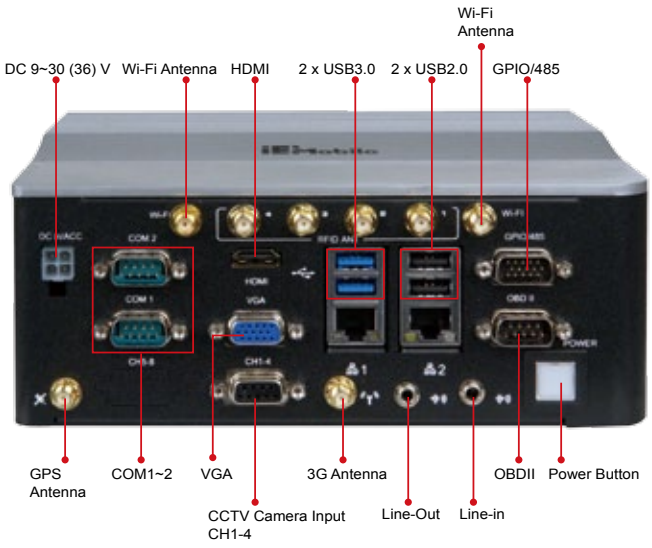
- Intel® Celeron® M 847E 1.1 GHz CPU
- Powered by Windows® Embedded Standard 7
- Built-in 2.5” 16GB SATA SSD
- Built-in Bluetooth, GPS
- Built-in VGA Output and HDMI Output
- Support Software or Hardware Video Compression
- Optional Dual SIM
- Optional UHF RFID Reader Module
- Optional Wi-Fi & HSUPA modules

## Specifications

| Model | | AVL-3100 |
|---|---|---|
| System | CPU | Intel® Celeron® M 847E 1.1 GHz |
| | Chipset | Intel QM77 |
| | Operating System | Windows® Embedded Standard 7 E |
| | Memory | 2GB DDR3 SO-DIMM 204PIN 180° |
| | Storage | 1 x Built-in 16GB SATA SSD |
| | | 1 x SDXC slot for data storage (max. 32GB) |
| | Display | VGA+HDMI |
| | Power Button | 1 x Power button with LED |
| Communication | Wi-Fi | 802.11b/g/n |
| | Bluetooth | BT2.0 (optional BT4.0) |
| | 3.75G | GPRS/GSM 3.75G module with dual SIM card, Supports AGPS (optional dual module) |
| | GPS | On-board u-blox LEA-6S module<br>(Optional u-blox LEA-6N (GPS+GLONASS)) |
| Data Collection | RFID | 4 x UHF RFID + ANT |
| Mulimedia | Audio | Mic in / Line out |
| Compression | SW Compression | 4 x SW Compression |
| | HW Compression (Optional) | 4 x HW Compression |
| LED Indicator | | 1 x Power LED |
| I/O Interface | | 4 x USB 2.0 , 2 x USB 3.0 |
| | | 1 x OBD-II with CAN-bus |
| | | 2 x RS-232, 1 x RS-422/485 |
| | | 2 x Gigabit LAN |
| | | 4 x VIDEO IN |
| | | 4 x DI, 4 x DO |
| Power | Power Input | 9V ~ 36V DC-IN, battery or AC/DC adapter |
| | | 3 modes suppport: Auto, Manual, Manual w/ ACC |
| Environment | Operating Temperature | -20˚C~70˚C |
| | Storage Temperature | -30˚C ~ +80˚C |
| | Humidity | 5%~95%RH |
| | Certification | CE/FCC/e-Mark |
| Physical Characteristics | Dimensions (LxWxH) (mm) | 200 x 150 x 76 |
| | Weight | 2015 g |

## Optional Accessory List

| Item | Part Number |
|---|---|
| Cigarette Lighter Power Cable | 32002-001800-100-RS |
| J1939 Cable | 32025-000400-100-RS |
| UHF RFID Antenna w/Cable (PATCH Antenna 915MHZ) | AVL-2000PLUS-FCC01-R10 |
| UHF RFID Antenna w/Cable (PATCH Antenna 867.5MHZ) | AVL-2000PLUS-ETSI01-R10 |
| Power Adapter | IVIPOWER-4PIN-R10 |




## Packing List

| Item | Part Number | Quantity |
|---|---|---|
| GPS/3.75G Integrate Antenna | 32506-000100-100-RS | 1 |
| Wi-Fi Antenna | 32505-000400-100-RS | 2 |
| ACC Power Cable | 32002-001900-100-RS | 1 |
| User Manual CD-ROM | 7B000-000969-RS | 1 |
| IEI One Key Recovery CD | 7B000-000781-RS | 1 |
| Video Capture | 32007-001400-100-RS | 1 |
| OBDII | 32025-000300-100-RS | 1 |

## Ordering Information

| Part No. | Description |
|---|---|
| AVL-3100-847E-SC-R10 | In Vehicle PC Box with Intel® Celeron 847E 1.1Hz CPU, 2GB SDRAM,GiGa Lan, 802.11 b/g/n Wireless, Bluetooth, 3.75G HSUPA, GPS, OBD-II, 4CH UHF RFID, 4CH SW compression Video Capture, RoHs |

# Dual Module, Dual SIM Applications

The AVL-3100 supports dual SIM card installation. When the vehicle moves from one country to another, the AVL-3100 will decide which SIM card should be used and automatically switch to that SIM card for connection.

- Support PCIe Mini slot to install the optional WWAN module (Use Sirrea MC879X module)
- Support data and voice transmission
- Various options to meet customer demand: single module single SIM, single module dual SIM, dual module dual SIM

# AVL-1100

## Advanced Auto Data Server

New

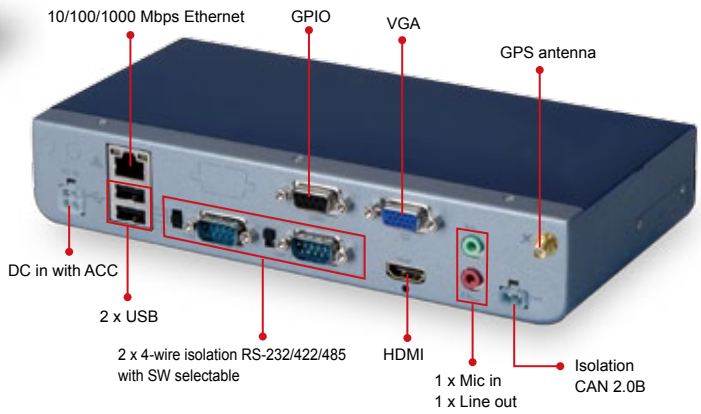
### *Features*

- Freescale™ i.MX6 quad-core Cortex™-A9 1.2GHz
- Android 4.1.2 operation system
- Built-in Wi-Fi
- Built-in VGA/HDMI display
- Built-in LAN, 2 x USB, 2 x RS-232/422/485
- Built-in CAN 2.0
- Built-in 3.75G HSUPA

### *Specifications*

Wi-Fi | Bluetooth | 3.75G/HSUPA | RS-232 | HDMI | GPS | CAN-Bus | ANDROID

| Model | | AVL-1100 |
|---|---|---|
| System | CPU | Freescale i.MX6 1.2GHz Quad-Core |
| | Operating System | Android 4.2 |
| | RAM | 1GB DDRIII |
| | Storage | 8GB iNAND Flash<br>SD Card Slot |
| Communication | Wireless LAN | Wi-Fi 802.11 a/b/g/n |
| | Bluetooth | Yes |
| | Data Rate | WCDMA/HSUPA |
| | GPS | GPS w/ external antenna |
| Multimedia | Audio | 1 x Mic in<br>1 x Line Out |
| LED Indicators & Buttons | Indicators | Power LED |
| | | 3.75G, WIFI Indicator |
| | Hot Key & Buttons | Power On / Off button |
| I/O Interface | USB | 3 x USB 2.0 |
| | Serial | 2 x 4 wire isolation RS232/422/485 w/ Select SW |
| | LAN | 1 x 10/100/1000 Ethernet |
| | VGA | 1 x VGA out |
| | CAN | 1 x Isolation CAN 2.0B |
| | Digital I/O | 2 x isolation DI/DO |
| | HDMI | 1 x HDMI out |
| Power | Cigratte Lighter Power | Cigaretee Lighter Power Cable DC9-36V |
| | ACC Power | ACC power on/off mode with software configurable delay time |
| Environment | Operating Temperature | 0°C~60°C |
| | Storage Temperature | -20°C~70°C |
| | Humidity | 5%~95% non-condensing |
| | Environment Protection | IP53 |
| | Certifications | CE, FCC, eMark |
| Physical Characteristics | Dimensions (LxWxH)(mm) | 255 x 115 x 42mm |
| | Net Weight | 670g |




## Packing List

| Item | Part Number | Quantity |
|---|---|---|
| POWER CABLE | 32002-001900-100-RS | 1 |
| GPS antenna | 32502-000700-100-RS | 1 |

## Optional Accessory List

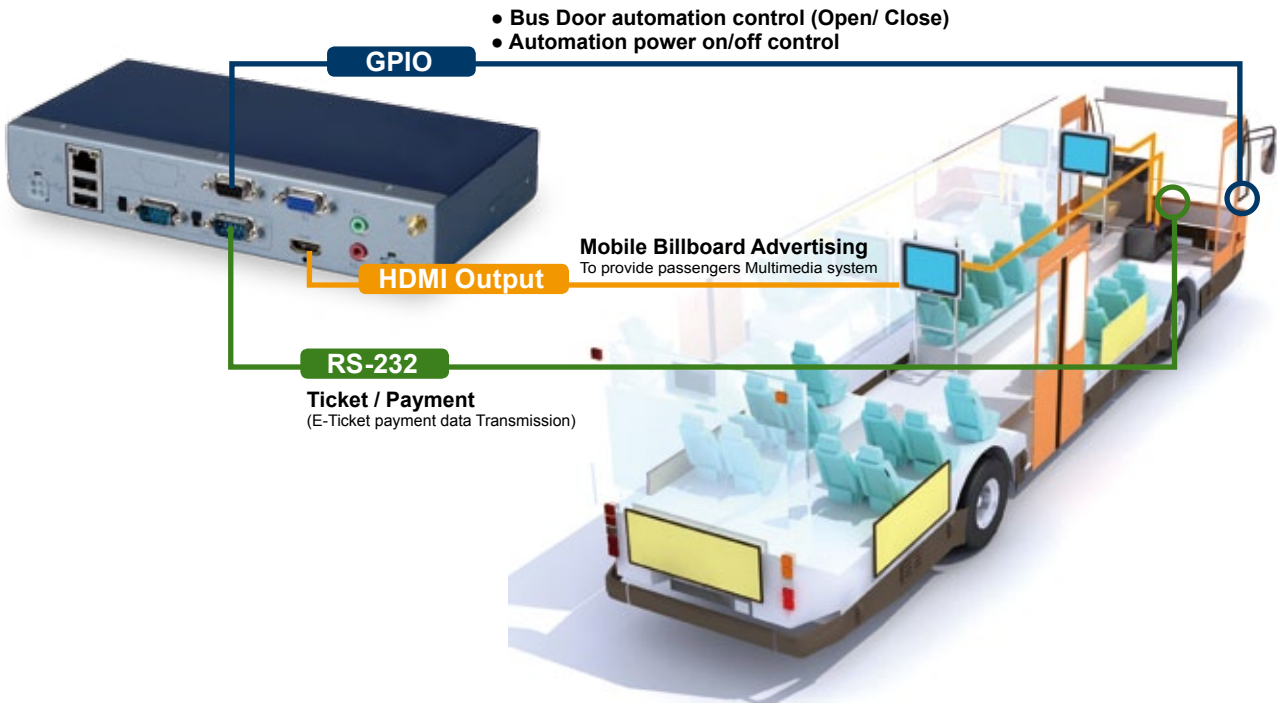
| Item | Part Number | Quantity |
|---|---|---|
| Adapter | IVIPOWER-4PIN-R10 | 1 |

## Ordering Information

| Part No. | Description |
|---|---|
| **AVL-1100-A9-R10** | Android Box PC with Freescale Cortex A9 iMX 6D 1.2GHz CPU, 1GB DDR3 RAM, 4GB iNAND Flash, CAN 2.0B, 10/100 Mbps LAN, 802.11 b/g/n + BT, RoHS |

# AVL-1100 Target Market - Public Transportation

The AVL-1100 is a dedicated box computer for industrial vehicle which combined with variety of digital I/O connectors can be connected to devices and provide advanced vehicle monitoring and control applications.



# KAMIO-A710

## Intelligent Control Server

New

KAMIO-8SP

KAMIO-A710A-QA7-R10

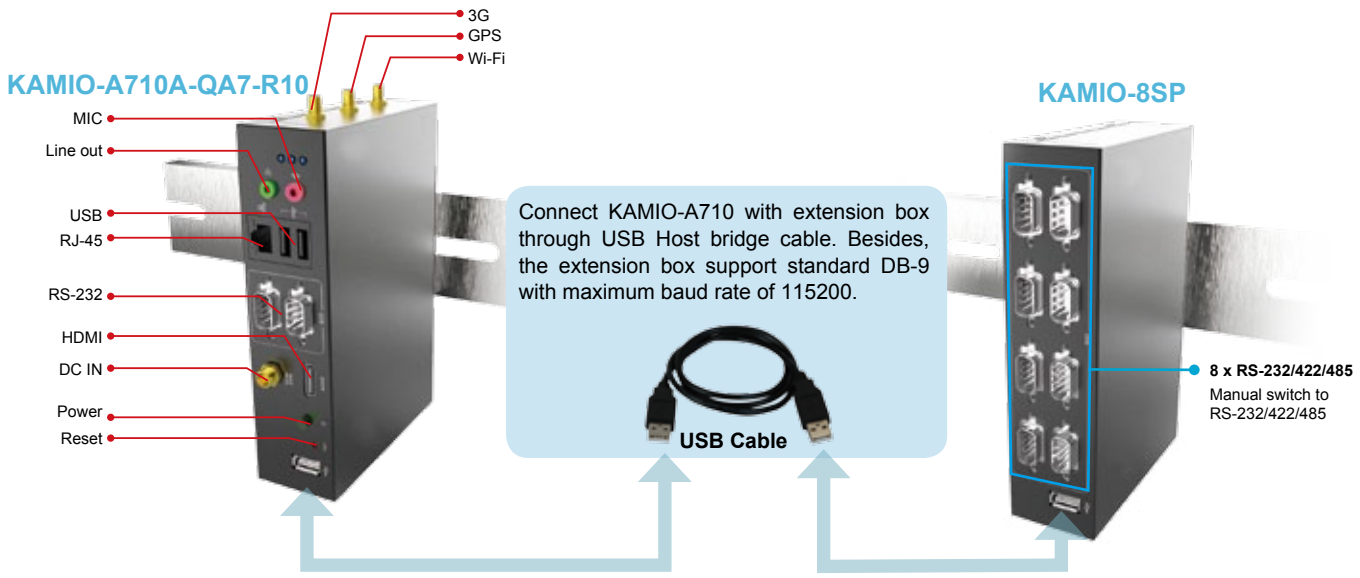
## Features

- Quad-core Cortex™-A7 processor running at 1.0GHz
- On-board 1 GB DDR3
- On-board 4 GB eMMC flash
- Supports OpenGL ES 2.0 and OpenVG 1.1 hardware accelerators, full HD 1080p video decode
- Full HD HDMI output supported
- 3 x USB 2.0
- 1 x 10/100/1000 Mbps Ethernet
- 1 x Internal microSD slot
- On-board PCIe Mini slot supports 3G module
- Low power and fanless design
- Stylish DIN rail design

Bluetooth | RS-232/422/485 | HDMI | Gigabit Ethernet LAN | USB 2.0 | GPS | ANDROID

## Specifications

| Model | | KAMIO-A710 |
|---|---|---|
| System | CPU | Quad-core Cortex™-A7 1GHz |
| | Operating System | Android 4.2.2 |
| | Memory | 4GB eMMC<br>1GB DDR3 |
| | Storage | MicroSD Slot up tp 32GB |
| Communication | Wi-Fi | 802.11 b/g/n (1T1R) |
| | Optional Modem | HSPA 800/850/1900/2100 MHz, quad-band GPRS/EDGE, data only (optional) |
| | Ethernet | IEEE 802.3, 10/100/1000Mbps |
| | Bluetooth | Bluetooth 4.0LE (Optional) |
| | HDMI | HDMI 1.4, max. 1920x1080 @30fps) |
| | Extension GPIO | INT x 4 (Reserve) |
| | GPS | GPS (Optional) |
| Indicators & Buttons | LED Indicators | Green/Green/Red |
| I/O Interface | Audio | Mic in / Line out |
| | Connector | 2 x High-speed USB 2.0 host<br>1 x High-speed USB 2.0 for connection<br>2 x DB-9 232/422/485<br>1 x RJ-45 10/100/1000Mbps |
| Power | Power Adapter | 12V/5A |
| | Battery | Optional |
| Enviroments | Operating Temperature | -10ºC ~ 50ºC |
| | Storage Temperature | -20ºC ~ 60ºC |
| | Humidity | 5% ~ 95%, non-condensing |
| | Cerification | CE/FCC |
| Physical | Dimensions (L x W x H) | 160.9 mm x 85.4 mm x 28.85 mm |
| | Weight | Main: 618g, Sub:625g |




## Ordering Information

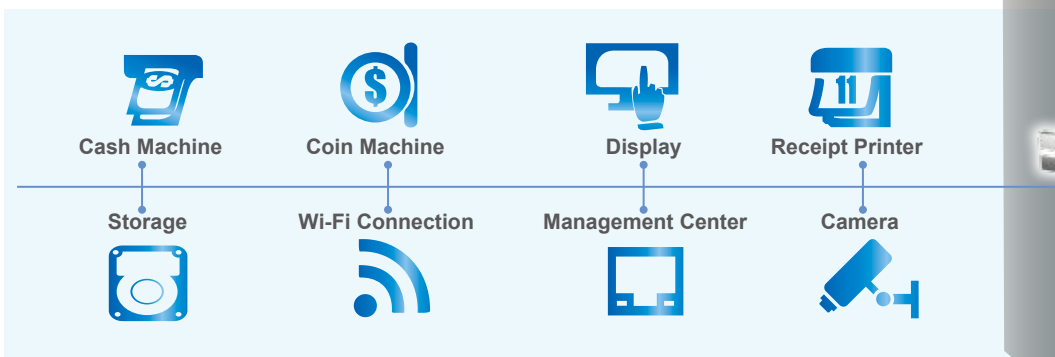
| Part No. | Description |
|---|---|
| KAMIO-A710A-QA7-R10 | Quad-Core Cortex A7 1.0GHz CPu, 1GB DDR3 RAM, 4GB eMMC Flash, HDMI 1.4, RS-232/422/485, 10/100/1000Mbps LAN, 802.11b/g/n, RoHS |
| KAMIO-8SP-R10 | KAMIO-A710-QA7 Sub Board, RS-232/422/485 x8 |

## Packing List

| Item | Part Number | Quantity |
|---|---|---|
| AC-DC Adapter | 63040-010060-040-RS | 1 |

# KAMIO-A710 Application

KAMIO-A710 is designed as an intelligent control server to manage devices, such as cash machine, coin machine, and receipt printer. KAMIO-A710 can be set up inside of a vending machine in order to control other devices through standard DB-9 RS-232/422/485 ports.



Today, the vending machine is getting popular and surrounds in our life. With any business may use vending machine to sell products. KAMIO-A710 supports ten RS-232/422/485 standard DB-9 ports for user to connect devices.

Vending Machine

Ticketing

KIOSK

# RISC Based PC

| Model Name | | IOVU-07F-AD | IOVU-752S | IOVU-751R | IOVU-572M | IOVU-430S |
|---|---|---|---|---|---|---|
| System | CPU | Freescale iMax6 Cortex-A9 Quad Core 1GHz | Samsung S3C6410 ARM11 677 MHz | Alchemy™ AU1250 500 MHz | XScale® PXA310 624 MHz | Samsung S3C2416 400 MHz |
| | Operating System | Android 4.2.2 | Win CE 6.0 | Win CE 5.0 | Win CE 6.0 | Win CE 6.0 |
| | Bootloader Storage | 4G eMMC Nand Flash | 128 MB | 2 MB | 128 MB | 128MB |
| | RAM | 1GB DDR3 SDRAM on board | 256 MB DDR2 | 256 MB DDR2 | 256 MB DDR2 | 128 MB SDRAM |
| | Program Storage Area | Bootloader Storage | Bootloader Storage | 1GB SD card | Bootloader Storage | Bootloader Storage |
| Display | LCD Size | 7” | 7” | 7” | 5.7” | 4.3" |
| | LCD Color | WSVGA | 262 K | 262 K | 262 K | 262 K |
| | Display Resolution | 1024(w) X 600(H) | WVGA | WVGA | VGA | WQVGA |
| | LCD Brightness ($cd/m^2$) | 300 nits | 500 | 500 | 400 | 500 |
| | Dot Pitch (mm) | 0.05(W) x 0.15(H) | 0.1905(H) x 0.1905(V) | 0.064(H) x 0.191(V) | 0.06(H) x 0.18(V) | 0.066(H) x 0.198(V) |
| | Viewing Angle (H-V) | 150° / 145° | 140° / 130° | 140° / 100° | 140° / 100° | 140° / 120° |
| | Backlight MTBF | 20,000 Hr. | 50000 | 50000 | 50000 | 20000 |
| | Touch Screen | Capacitive Type | Resistive Type | Resistive Type | Resistive Type | ResistiveType |
| | Multimedia Support | MPEG-2/4, H.263, H.264 | MPEG-4/H.263/H.264 | MPEG 1/2/4 and WMV9 | MPEG 1 | MPEG-1/2/4/H.263 |
| I/O and Communication | I/O Interface | 1 x 10/100/1000 Mbps Ethernet<br>2 x USB 2.0 Host<br>1 x RS-232/422/485 support software controllable(DB9)<br>1 x RS232 Full-Function(DB9)<br>1 x SD Slot (up to 32GB)<br>1 x CAN 2.0<br>4 x DIO<br>1 x Mic<br>1 x 2MP front Camera | 1 x RS-232 COM port<br>1 x RS-232/422/485 COM port (software configurable)<br>1 x 10/100Mbps LAN (supports PoE)<br>2 x USB 2.0 host<br>1 x Reset button<br>1 x On/Off power switch<br>1 x Power jack | 1 x 4-wired RS-232/422/485 (software configurable)<br>1 x RS-232<br>2 x 10/100Mbps LAN (one supports PoE)<br>2 x USB 2.0 host<br>1 x Reset button<br>1 x AT mode power switch<br>1 x 2-pin terminal block DC input<br>1 x Power jack | 1 x RS-232/422/485 (software configurable)<br>2 x 10/100Mbps LAN<br>2 x USB 1.1 host<br>1 x SD card slot<br>1 x Reset button<br>1 x AT mode power switch<br>1 x 2-pin terminal block DC input | 1 x RS-232/422/485 COM port (software configurable)<br>1 x Reset button<br>1 x 10/100Mbps LAN<br>1 x USB 1.1 host<br>1 x CAN-bus 2.0b<br>6 x GPIO (voltage range 2.97V~3.63V)<br>1 x 2-pin terminal block DC input<br>1 x miniSD card slot |
| | Audio | 1 x1.5W Speaker | 2 x 1.5W speaker | 2 x 1.5W speaker | 2 x 1.5W speaker | 2 x 1W speaker |
| | Wireless LAN | 1 x BT+WiFi Controller for 802.11b/g/n | N/A | N/A | 802.11a/b/g/n | 802.11a/b/g/n |
| Dimensions | Construction Material | Front panel: ABS+PC Plastic ; Back cover: Metal | Aluminum (Al 6061) | ABS + PC Plastic | ABS + PC Plastic | ABS + PC Plastic |
| | Net Weight (kg) | 945g | 1.2 | 0.8 | 0.7 | 0.6 |
| | Front Panel Color | Black | Silver | Black | Black | Black |
| | Dimensions (W x H x D mm) | 210(W) x 154(H) x 40.1(D) mm | 188 x 124 x 40 | 226 x 140 x 41 | 180 x 135 x 46 | 145 x 104 x 34 |
| Environmental and Power | Operating Temperature (ºC) | 0~50°C | -10°C~ 60°C | -20ºC~60ºC | -10°C~ 60°C | 0ºC~50ºC |
| | Front Panel Protection | N/A | IP64 compliant | IP64 compliant | IP64 compliant | IP65 compliant |
| | Power Mode | ATX | AT | AT | AT | AT |
| | Power Requirement | 9~30V DC | 6~30V DC input | 6~30V DC input | 12~36V DC input | 12~36V DC input |
| | Power Consumption | 12V , 1.55A | 14 W | 14 W | 14 W | 7 W |
| | Vibration and Shock | 1. Operating Random Vibration Mode<br>A. Axis: 3 axes (Vertical / Transverse / Longitudinal).<br>B. 10-500 Hz, 60min/axis.<br>C. Equivalent to Z:1.04 Grms X:0.204 Grms Y:0.74 Grms<br>2. Non Operating Random Mode<br>A. Axis: 3 axes (Vertical / Transverse / Longitudinal).<br>B. 20-1000 Hz, 60min/axis<br>C. 0.04g2/Hz | 1. Axes: 3 axes (Vertical / Transverse / Longitudinal)<br>2. 10 ~ 500Hz, 60min/axis<br>3. Equivalent to Z: 2.18Grms, X: 1.6Grms, Y: 1.96Grms | | | |
| | Humidity | 5% ~ 90%RH (no-condensing) | 5%-90% RH | 5%-90% RH | 5%-90% RH | 5%-90% RH |

# IOVU-07F-AD

## 7” RISC-based Panel PC

New

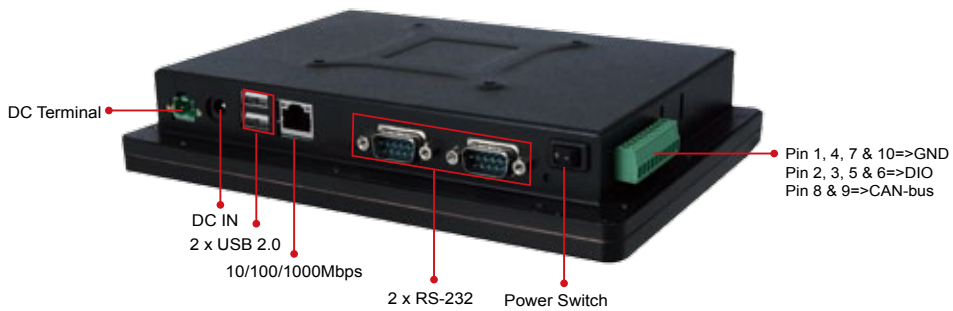
## *Features*

- 7” LED Backlight Color Active Matrix TFT
- Projected Capacitive Touchscreen
- Freescale™ i.MX6 Cortex™-A9 Quad-Core (1.0GHz) CPU
- Android 4.2 OS
- One 10/100/1000Mbps Ethernet
- Optional Wi-Fi+BT, Camera
- CAN 2.0b, 4 x DIO (configurable by software)

IOVU Fanless Touchscreen Camera CAN-Bus Wi-Fi Bluetooth ANDROID

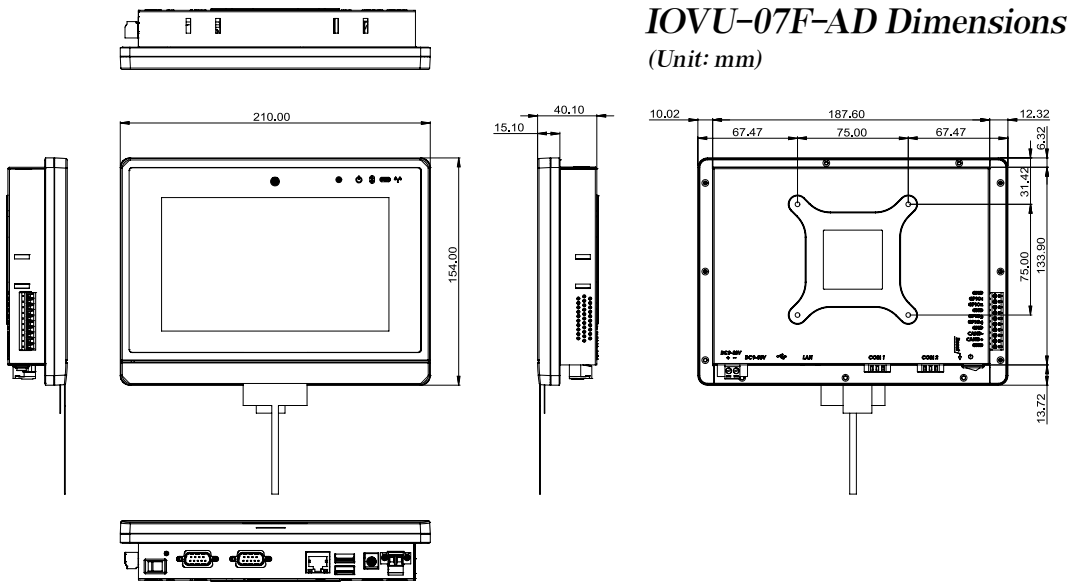
## *Specifications*

| Model | | IOVU-07F-AD |
|---|---|---|
| Display | LCD Size | 7 “ TFT LCD |
| | Max. Resolution | 1024(W) x 600(H) WSVGA |
| | Brightness (cd/m²) | 350 cd/m² |
| | Viewing Angle | 75/75/70/75 Deg. |
| | Touch Screen | Prejected capacitive |
| System | CPU | Freescale™ i.MX6 Cortex™-A9 quad-core 1.0GHz |
| | Operating System | Android 4.2 |
| | Memory | 1GB DDR3 SDRAM |
| | Boot Flash | 4GB eMMC iNAND |
| Communication | Wireless LAN | Wi-Fi 802.11b/g/n (optional) |
| | Bluetooth | Bluetooth Class 4.0 + HS (optional) |
| Data Collection | CAN | Can 2.0b |
| | Camera | 2-megapixel CMOS front camera (optional) |
| I/O Interface | USB | 2 x USB 2.0 |
| | LAN | 1 x 10/100/1000 Mbps |
| | RS-232 | 1 x RS-232/422/485 supports software configurable (DB-9)<br>1 x RS-232 full-function (DB-9) |
| | DIO | 4 x DIO |
| | Audio | 1 x 1.5W speaker |
| Environment | Operating Temperature | 0˚C ~ 50˚C |
| | Storage Temperature | -10˚C ~ 60˚C |
| | Humidity | 5%~90%, non-condensing |



## IOVU-07F-AD Dimensions

*(Unit: mm)*




## Options

| Part No. | Description |
|---|---|
| AFLPK-12 | Panel mounting kit |
| AFLWK-12 | VESA 75 wall mounting kit |
| ARM-11-RS | LCD monitor / PPC arm kit, loading capacity from 3 kg ~ 7 kg |
| STAND-A08-RS | LCD monitor / PPC stand kit for VESA 75 and supports up to 5 kg |
| VSTAND-A07 | LCD monitor / PPC stand V type for VESA 75, 0~90 degree adjustable hinge and supports up to 2.5 kg |
| AFLP-CDB01/AFLP-CDW01 | VFD customized display (green) 5 x 7 dot matrix (black / white) |
| 63040-010060-030-RS | Adapter Power; FSP; FSP060-DBAE1; 9NA0603111; Active PFC; Vin: 90~264VAC; 60W; Dim:62 x 110 x 31.5mm; Plug=9.5mm; Cable=1500mm; Erp (NO LOAD 0.1W); Vout: 12VDC; Φ2.5/Φ5.5; CCL; RoHS |
| 63040-010060-060-RS | Adapter Power; FSP; FSP060-DBAE1; 9NA0603113; Active PFC; Vin:90~264VAC; 60W; Dim: 62mm x 110mm x 31.5mm; Cable=1200mm; Erp (NO LOAD 0.1W); Vout: 12VDC; Bare Wire; CCL; RoHS |

## Packing List

| |
|---|
| 1 x Utility CD includes application tools, SDK, and technical document |
| 1 x Null modem cable |

## Ordering Information

| Part No. | Description |
|---|---|
| IOVU-07F-AD-ET-R10 | 7" TFT-LCD; Freescale™ i.MX6 Cortex™-A9 Quad-Core 1.0 GHz CPU; CAN; Android 4.2 |
| IOVU-07F-AD-WBC-R10 | 7" TFT-LCD; Freescale™ i.MX6 Cortex™-A9 Quad-Core 1.0 GHz CPU; CAN; Wi-Fi/Bluetooth; Camera; Android 4.2 |

Vehicle PC

Industrial Automation

Home/Building Automation

Multimedia / Digital Signage

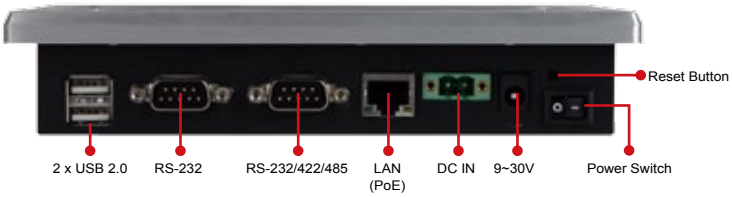
# IOVU-752S

## 7" TFT WVGA LCD with resistive touchscreen

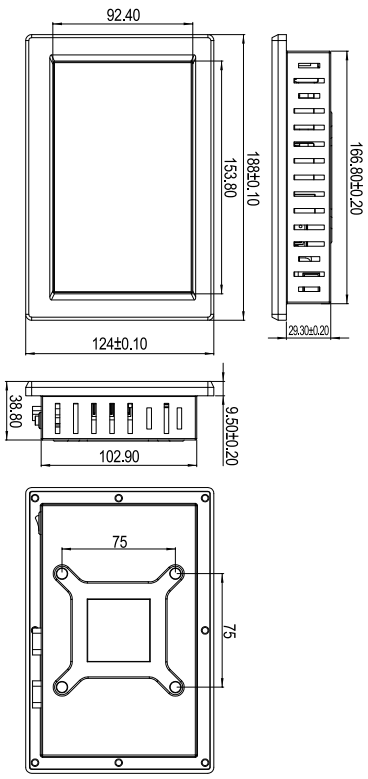
## Features

- 7” TFT WVGA LCD with resistive touchscreen
- Samsung S3C6410 ARM11 677MHz CPU
- Powered by Windows® CE 6.0
- Built-in Ethernet LAN
- Built-in RS-232/422/485 Port
- Supports Power over Ethernet (PoE)
- Multimedia support for MPEG-4/H.263/H.264

IOVU Fanless Touchscreen Wide Temperature SAMSUNG




## IOVU-752S Dimensions (Unit: mm)




## Packing List

| |
|---|
| 1 x Utility CD includes application tools, SDK, and technical document |
| 1 x Null modem cable |
| 1 x Touch pen |
| 1 x Screw kit |

## Ordering Information

| Part No. | Description |
|---|---|
| IOVU-752S-CE6/-R10 | 7” LCD, SAMSUNG S3C6410X66-YB40 667MHz with PoE function, WIN CE6.0, RoHS |

## Options

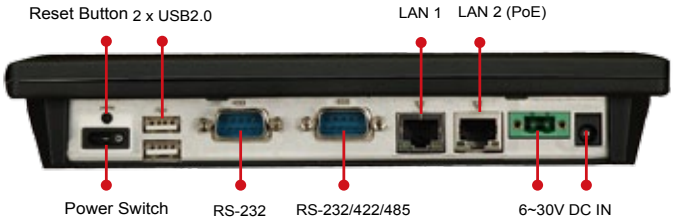
| Part No. | Description |
|---|---|
| AFLPK-12 | Panel mounting kit |
| AFLWK-12 | VESA 75 wall mounting kit |
| ARM-11-RS | LCD monitor/PPC arm kit, loading capacity from 3kg~7kg |
| STAND-A08-RS | LCD monitor/PPC Stand kit for VESA 75 and supports up to 5 kg |
| VSTAND-A07 | LCD monitor/PPC Stand V type for VESA 75, 0~90 degree adjustable hinge and support up to 2.5 Kg |
| AFLP-12BMSR-U | USB magnetic card reader |
| AFLP-BRW01-U / AFLPBRB01-U | USB barcode reader (white / black) |
| AFLP-CDB01 / AFLP-CDW01 | VFD customer display (green) 5 x 7 dot matrix (black / white) |
| 63000-FSP060DBAB1553-RS | Power adapter; FSP; FSP060-DBAB1; active PFC; Vin: 90~264VAC; 60W; Dim: 62*110*31.5mm; plug=9.5mm; cable=1500mm; Erp (no loading 0.5W); vout:12VDC; Φ2.5/Φ5.5; CCL; RoHS |
| 63040-010060-060-RS | 12V/5A DC 60W power adapter with bare wire, 90~264V AC input |

# IOVU-751R

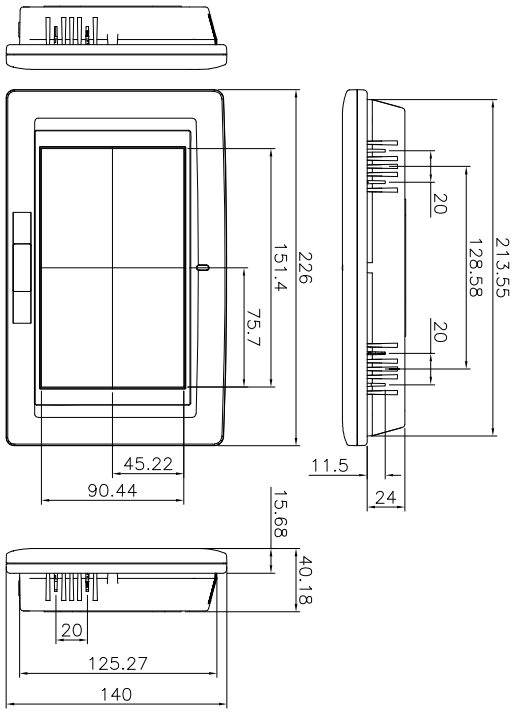
## 7" TFT WVGA LCD with resistive touchscreen

## Features

- 7” TFT WVGA LCD with resistive touchscreen
- Alchemy™ AU1250 500 MHz CPU
- Powered by Windows® CE 5.0
- Built-in Ethernet LAN
- Built-in RS-232/422/485 Port
- Supports Power over Ethernet (PoE)
- Multimedia support for MPEG 1/2/4 and WMV9




## IOVU-751R Dimensions (Unit: mm)




## Packing List

| |
|---|
| 1 x IOVU-751R |
| 1 x Utility CD includes application tools, SDK, and technical document |
| 1 x Null modem cable |
| 1 x Touch pen |
| 1 x Screw kit |

## Ordering Information

| Part No. | Description |
|---|---|
| IOVU-751R-CE5/-R10 | 7”, WVGA fan-less touch panel PC with RMI Alchemy AU1250 CPU, 256MB DDR2 SDRAM, LAN supports PoE function and built-in Windows® CE5.0 Operating System |

## Options

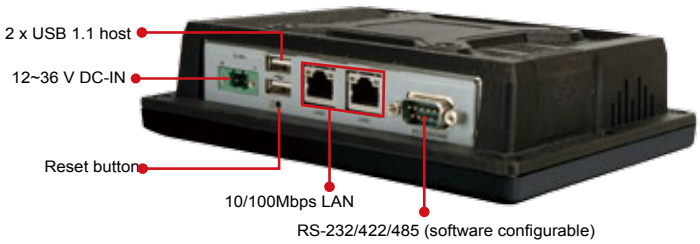
| Part No. | Description |
|---|---|
| AFLPK-12 | Panel mount kit |
| AFLWK-12 | VESA 75 wall mount kit |
| ARM-11-RS | LCD Monitor/PPC Arm kit loading capacity from 3kg~7kg |
| STAND-A08-RS | LCD Monitor/PPC Stand kit for VESA 75 and supports up to 5 kg |
| VSTAND-A07 | LCD Monitor/PPC Stand V type for VESA 75, 0~90 degree adjustable hinge and support up to 2.5 kg |
| AFLP-12BMSR-U | USB Magnetic Card Reader |
| AFLP-BRW01-U / AFLPBRB01-U | USB Barcode Reader (White / Black) |
| AFLP-CDB01 / AFLP-CDW01 | VFD Customer Display (Green) 5 x 7 dot matrix (Black / White) |
| 63000-FSP060DBAB1553-RS | Adapter Power; FSP;FSP060-DBAB1; Active PFC; Vin:90~264VAC; 60W; Dim: 62*110*31.5mm; Plug=9.5mm; Cable=1500mm; Erp(NO LOAD 0.5W); Vout:12VDC; Φ2.5/Φ5.5; CCL; RoHS |
| 63040-010060-060-RS | 12V/5A DC 60W power adapter with bare wire, 90~264V AC input |

# IOVU-572M

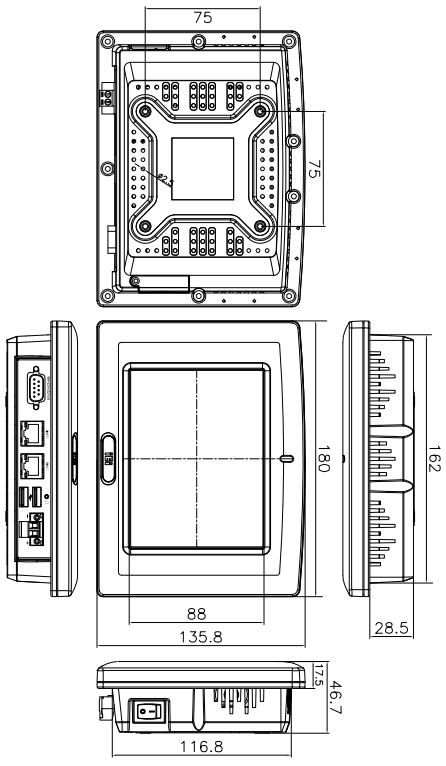
## 5.7" TFT VGA LCD with resistive touchscreen

## Features

- 5.7” TFT VGA LCD with resistive touchscreen
- XScale® PXA310 624MHz CPU
- Powered by Windows® CE 6.0
- Built-in Ethernet LAN and Wi-Fi
- Built-in RS-232/422/485 Port




## IOVU-572M Dimensions (Unit: mm)




## Packing List

| |
|---|
| 1 x Utility CD includes application tools, SDK, and technical document |
| 1 x Null modem cable |
| 1 x Touch pen |

## Ordering Information

| Part No. | Description |
|---|---|
| IOVU-572M-CE6/-R11 | 5.7” LCD, Marvell PXA310 624MHZ, built-in Wi-Fi, WIN CE6.0, RoHS |

## Options

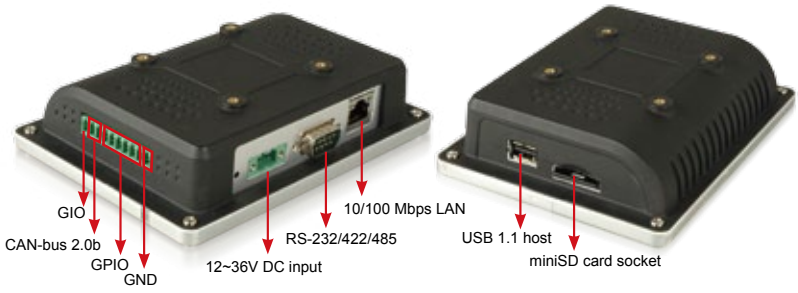
| Part No. | Description |
|---|---|
| AFLPK-12 | Panel mounting kit |
| AFLWK-12 | VESA 75 wall mounting kit |
| ARM-11-RS | LCD monitor/PPC arm kit, loading capacity from 3kg~7kg |
| STAND-A08-RS | LCD monitor/PPC stand kit for VESA 75 and supports up to 5 kg |
| VSTAND-A07 | LCD monitor/PPC stand V type for VESA 75, 0~90 degree adjustable hinge and supports up to 2.5 kg |
| AFLP-12BMSR-U | USB magnetic card reader |
| AFLP-BRW01-U / AFLPBRB01-U | USB barcode reader (white / black) |
| AFLP-CDB01 / AFLP-CDW01 | VFD customer display (green) 5 x 7 dot matrix (black / white) |
| 63040-010060-060-RS | 12V/5A DC 60W power adapter with bare wire, 90~264V AC input |

# IOVU-430S

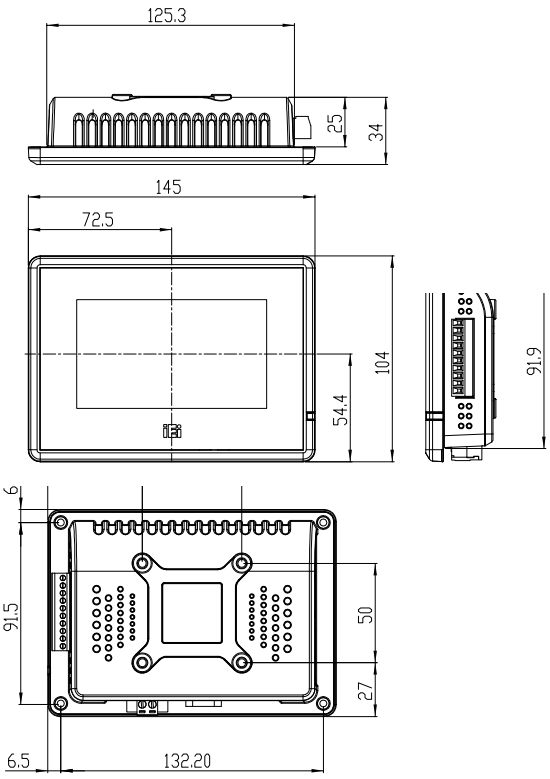
## 4.3" TFT WQVGA LCD with resistive touchscreen

## Features

- 4.3” TFT WQVGA LCD with resistive touchscreen
- Samsung S3C2416 400MHz CPU
- Powered by Windows® CE 6.0
- Built-in Ethernet LAN and optional Wi-Fi
- Built-in CAN-bus 2.0b and GPIO
- Built-in RS-232/422/485 Port




## Dimensions (Unit: mm)




## Packing List

| |
|---|
| 1 x IOVU-430S |
| 1 x Null modem cable |
| 1 x Screw kits |
| 1 x Utility CD includes SDK, utilities, and technical document |
| 1 x Touch pen (only for single touch mode) |

## Options

| Part No. | Description |
|---|---|
| 63040-010060-060-RS | 12V/5A DC 60W power adapter with bare wire, 90~264V AC input |
| IOVU-430M-IWC/B/-R10 | In-wall cage (Black) |
| IOVU-430M-IWC/W/-R10 | In-wall cage (White) |

## Ordering Information

| Part No. | Description |
|---|---|
| IOVU-430S-CE6/ST/-R10 | RISC Panel PC, 4.3” LCD, ARM S3C2416X40-Y640 400MHz CPU, 128MB SDRAM, Win CE6.0, RoHS |
| IOVU-430S-CE6/ST/WL/-R11 | RISC Panel PC, 4.3” LCD, ARM S3C2416X40-Y640 400MHz CPU, 128MB SDRAM with 802.11a/b/g/n Wi-Fi function, Win CE6.0, RoHS |

# IURS-300

## Intelligent UHF Reader System

New

## Features

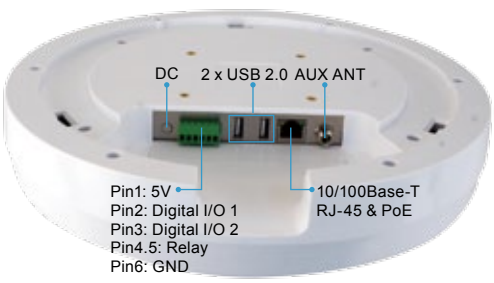
- 3-in-1 design: UHF Antenna + Reader System + I/O control
- Powered by Windows CE 6.0, easy programming by using IEI SDK
- Impinj R2000 RFID chipset
- ISO18000-6C (EPC Gen2) full protocol support
- ISO18000-6A,B compatibility in direct mode
- RFID frequency range: 840 MHz to 960 MHz
- Antenna on unit, connected by LAN, no coaxial cable and low cable loss.
- Two I/O, one relay, PoE

## Specifications

| Model | | IURS-300 |
|---|---|---|
| System | CPU | Samsung S3C2416 400MHz |
| | Operating System | WinCE 6.0 |
| | Memory | 256MB DDR SDRAM |
| | Storage | 128MB NAND Flash |
| Communication | Ethernet / Wireless | 1 x Ethernet |
| Data Collection | RFID | Impinj® R2000 EPCglobal UHF Class 1 Gen 2 |
| | Frequency | 840MHz to 960MHz |
| | ISO Protocol | ISO 18000-6C (EPC Gen2) full protocol support |
| | | ISO 18000-6A/B compatible in direct mode |
| I/O Interface | USB | 2 x USB 2.0 |
| | Digital I/O | 2 x Digital I/O, 1 x Relay (N.O.) |
| Power | Internal Power Amplifier | 30dBm |
| | Receive Sensitivity | -86dBm |
| Environment | Power Adapter | PoE or 12V DC input |
| | Operating Temperature | 0˚C ~ 50˚C |
| | Humidity | 5%~95%, non-condensing |

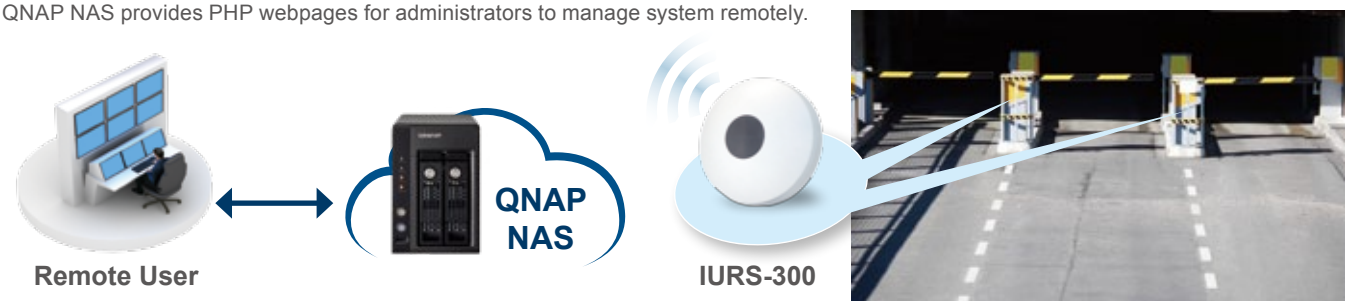
## Ordering Information

| Part No. | Description |
|---|---|
| IURS-300-WS-R10 | Intelligent UHF Reader System, PoE, USB,Digital I/O, Relay, 1CH UHF RFID, DC 12V/5A |

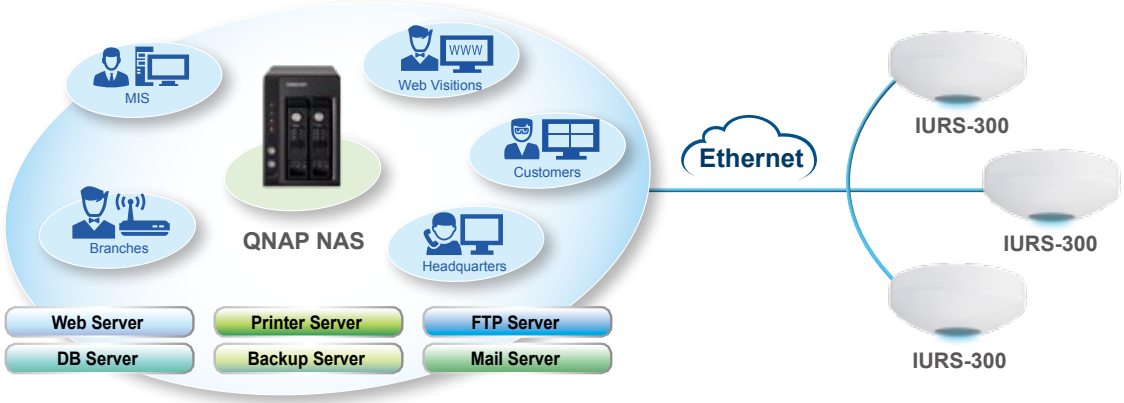


# Parking Lot Management System

- To setup a parking lot management system, use one IURS-300 to monitor outbound vehicle and another for inbound. In addition, use a QNAP NAS to server as a database to store data for each record.
- Setup UHF readers in inbound and outbound lanes, and a UHF tag has to be installed on each vehicle for the IURS-300 detection.
- To establish membership database with vehicle and driver's information, MySQL database has to be installed on the QNAP NAS.
- QNAP NAS provides PHP webpages for administrators to manage system remotely.




# System Architecture




# Retail Store/Warehouse Application

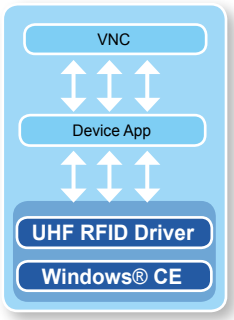
# Software Developing Architecture

## Software Developing – Passive/Active Data Transmission

- Passive collection report ─ IURS-300 provides a specified (configurable) TCP port to connect to the host's application.
- Active collection report ─ IURS-300 can update the tag information every 1, 5, 10...(configurable) seconds, and send to the host TCP port
- PC C# API, SDK, and demo code provided

## 1. Device Level Developing

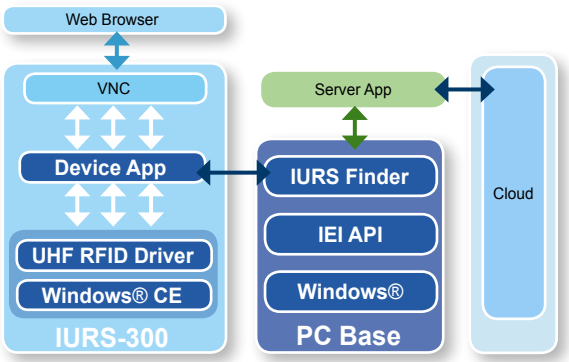
Device level developing is made through the SDK to design and control the I/O, LEDs, and UHF reader of the IURS-300, which supports users to define commutation method.




### API Function List:

| Function | Description |
|---|---|
| RFID_Startup (RFID_VERSION* pLibraryVersion, INT32U flags ) | To properly initialize any internal data structures and put itself into a well-known ready state. |
| RFID_Shutdown | To properly clean up any internally-held resources. |
| RFID_RetrieveAttachedRadiosList (RFID_RADIO_ENUM* pBuffer, INT32U flags) | Allows the application to obtain a list of the RFID radio modules that are attached to the system. |
| RFID_RadioOpen (INT32U cookie, RFID_RADIO_HANDLE* pHandle, INT32U flags ) | A request to assume control of an RFID radio module so that radio-access functions can be invoked upon it. |
| RFID_RadioClose (RFID_RADIO_HANDLE handle) | Relinquishes control of an RFID radio module that had been previously opened via RFID_RadioOpen and returns it to the idle state. |
| RFID_MacWriteRegister (RFID_RADIO_HANDLE handle, INT16U address, INT32U value) | Allows an application to set an RFID radio module's low-level register (i.e., MAC virtual register). |
| RFID_MacWriteBankedRegister (RFID_RADIO_HANDLE handle, INT16U address, INT16U bankSelector, INT32U value) | Allows an application to set an RFID radio module's low-level banked register (i.e., MAC virtual banked register). |
| TMP_INIT(); | Initial the LED, I/O Control |
| TMP_CMD_CONTROL (int Command, int Register); | Set the status of I/O |
| TMP_CMD_GET_STORED_DATA (byte str_storedata); | Get the status of I/O |
| TMP_CLOSE | Close the LED, I/O control |

## 2. Client-Server Level Developing

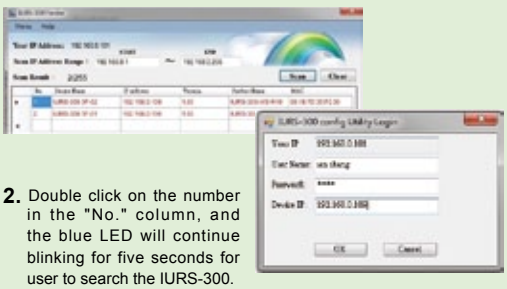



The client-server level developing is for the user who only focuses on developing and linking application systems and is not interested in communication control of the IURS-300. This model provides utilities and methods for users to manage the IURS-300, including IURS finder, IURS manager, C# and source code.

- IURS Finder: to search IURS-300 in internal network
- IURS Manager: to setup working model, output power, and report method

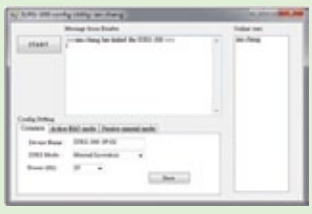
### IURS Finder

**1.** Enter the scan IP address range and the scan result is shown below.

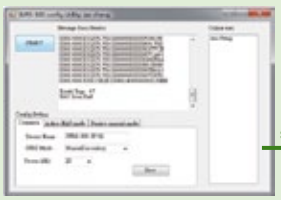


**2.** Double click on the number in the "No." column, and the blue LED will continue blinking for five seconds for user to search the IURS-300.

**3.** Double click on an IP address from "IP Address" column to login to the IURS-300



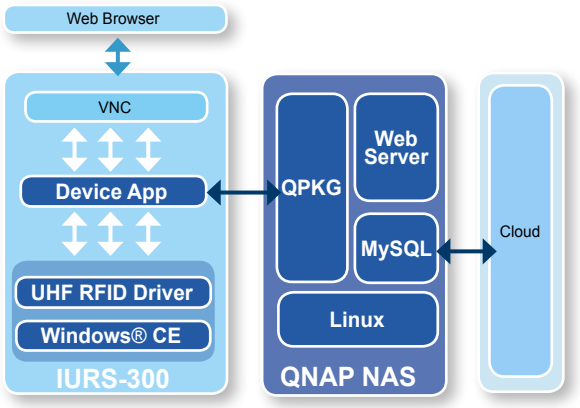
Device name, IURS mode, and power (db) can be modified after login to the IURS-300.




After clicking on the START button, IURS will start to scan the UHF RFID tag. When the scan is complete, the result will be displayed on a window and the tag data can be saved as "Data_Log.txt".

The scan time is defined as five seconds and the value can be re-defined.

# 3. Cloud Level Developing




It provides a total solution for the IURS-300 user to easily download applications from the app center of the QNAP NAS, which serves as a database and its settings can be configured through a web interface. This model is suitable for an enterprise which has IT personnel without programming skills.

**Features:**

1. Download and install QPKG to NAS
2. To integrate with database
3. Support web interface to operate
4. Search and setup the IURS-300 from NAS

## QPKG Center: Install CDS & PI

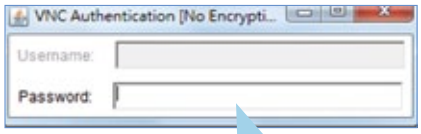
The Personnel Identification software can be used to establish an RFID management platform. Combining the QNAP NAS with the IURS-300, users can easily perform staff entry management.

**Cloud Delivery System Ver. 1.0**

**Personnel Identification Ver. 1.0**

The Cloud Delivery System software is used to establish a shipping platform via RFID system which contains the Modat-335 with the IURS-300 to manage products.

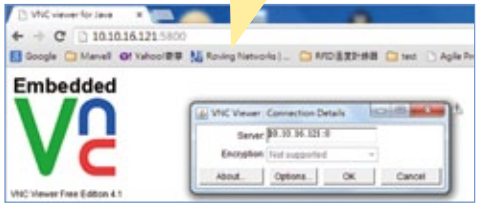
# 4. Web-based Remote Login Management




A **Input IP address with port number**

B **Input Password**

C **Remote Login Successfully**



**VNC**
**(Virtual Networking Computing)**

- Install EfonVNC freeware on the device
- Remote login from a web browser to setup system

# HF RFID TAG

## Intelligent HF RFID Sensor Tag/Data Logger

New

## Features

- Support temperature, vibration, ambient light, humidity, GPS data logging
- All-in-one design: built-in HF RFID sensor, data logger and USB 2.0
- Maximum storage: 10 million of data logging.
- 13.56 MHz RFID, ISO15693 RF air protocol
- Design for long term data recording
- Fast and efficient wireless RFID for reading out the instant data
- Support time-stamp
- Configurable duration from 1 second to 12 hour for one record

## Specifications

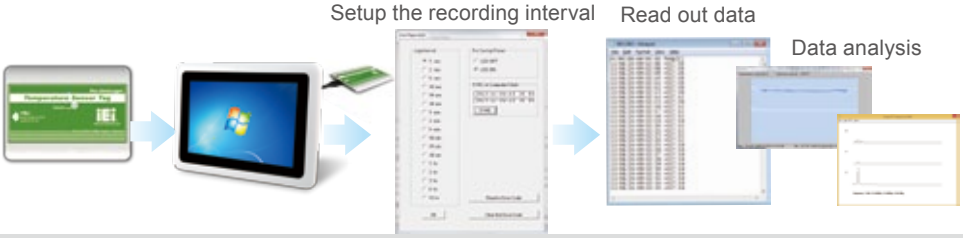
| Model Number | RFID-TP-D-ST-R10 | RFID-VB-D-ST-R10 | RFID-AL-D-ST-R10 | RFID-HT-D-ST-R10 | RFID-GPS-D-ST-R10 | RFID-STP-D-ST-R10 | RFID-TP-N-ST-R10 |
|---|---|---|---|---|---|---|---|
| Function | Temperature sensor tag plus data logger | Vibration sensor tag plus data logger | Ambient light sensor Ttag plus data logger | Humidity and temperature sensor tag plus data logger | GPS sensor tag plus data logger | Slim RFID temperature sensor plus data logger | RFID temperature sensor tag |
| Application | Frozen food Environment monitor | Transportation quality Machine abnormality | Environment monitor | Environment monitor | Transportation tracking | Frozen food Environment monitor | Frozen food Environment monitor |
| Datalogger | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Normal Used Range | From -20°C to 60°C | From -20°C to 60°C | From -20°C to 60°C | From -20°C to 60°C | From -20°C to 60°C | From -20°C to 60°C | From -20°C to 60°C |
| Accuracy | 0.5°C (max) from 0°C to +65°C<br>1.0°C (max) from –40°C to +125°C | Full scale ±8g<br>Output data rate 50Hz<br>Max. resolution 3.9mg | Full scale 16000 LUX<br>Resolution ±4 LUX | Relative Humidity ±2%, From 0% to 100%<br>Temperature ±0.2°C<br>( -40°C to 125°C ) | <3m | 0.5°C (max) from 0°C to +65°C<br>1.0°C (max) from –40°C to +125°C | 0.5°C (max) from 0°C to +65°C<br>1.0°C (max) from - 40°C to +125°C |
| Max Storage | 134,217,724 points ( 4GB ) | 134,217,724 points ( 4GB ) | 134,217,724 points ( 4GB ) | 134,217,724 points ( 4GB ) | 67,108,862 points ( 4GB ) | 3423 points (107KB) | 1 point |
| Time stamp | Yes | Yes | Yes | Yes | Yes | Yes | NO |
| Record Interval | 1, 2, 5, 10, 15, 30 sec<br>1, 2, 5, 10, 15, 30 min<br>1, 2, 3, 6, 12 hr | 50Hz | 1, 2, 5, 10, 15, 30 sec<br>1, 2, 5, 10, 15, 30 min<br>1, 2, 3, 6, 12 hr | 1, 2, 5, 10, 15, 30 sec<br>1, 2, 5, 10, 15, 30 min<br>1, 2, 3, 6, 12 hr | 1, 2, 5, 10, 15, 30 sec<br>1, 2, 5, 10, 15, 30 min<br>1, 2, 3, 6, 12 hr | 1, 2, 5, 10, 15, 30 sec<br>1, 2, 5, 10, 15, 30 min<br>1, 2, 3, 6, 12 hr | NA |
| Indicator (LED) | Short flash once: recording | | | | | | Short flash once: recording |
| | Short flash twice: error message | | | | | | NA |
| PC Interface | USB 2.0 mass storage device | | | | | | NA |
| RFID | ISO 15693, 13.56MHz | ISO 15693, 13.56MHz | ISO 15693, 13.56MHz | ISO 15693, 13.56MHz | ISO 15693, 13.56MHz | ISO 15693,13.56MHz | ISO 15693,13.56MHz |
| Power Supply | 4.0 to 5.5 VDC | 4.0 to 5.5 VDC | 4.0 to 5.5 VDC | 4.0 to 5.5 VDC | 4.0 to 5.5 VDC | 4.0 to 5.5 VDC | NA |
| Battery | Battery pack AA by 4 | Battery pack AA by 4 | Battery pack AA by 4 | Battery pack AA by 4 | Battery pack AA by 4 | 20mAh film battery inside | N/A |
| Water Proof | IP20 | IP20 | IP20 | IP20 | IP20 | IP20 | IP20 |
| Cerification | FCC CLASS A | FCC CLASS A | FCC CLASS A | FCC CLASS A | FCC CLASS A | FCC CLASS A | FCC CLASS A |
| Dimensions (L x W x H) | 12 cm x 8 cm x 3 cm | 12 cm x 8 cm x 3 cm | 12 cm x 8 cm x 3 cm | 12 cm x 8 cm x 3 cm | 12 cm x 8 cm x 3 cm | 9.2 cm x 6.6 cm x 0.2 cm | 9.2 cm x 6.6 cm x 0.1 cm |

# HF RFID Sensor Tag Plus Data Logger

The HF RFID tag series is designed for long-term temperature, vibration, ambient light, humidity and GPS recording. It uses an SD card as a mass storage media which can continually store 134 million points (four gigabytes for a file) of temperature when using continuous power (such as using USB power adapters). If continuous power is not available, it can use a one time battery case or a rechargeable battery bank which may support one week to one month recording depending on the recording duration and the type of the battery. The recording period can be configured from one second to twelve hours for one recording event. Recording data is easily to be read from the USB port. The data stored on a file is called “RECORD. TXT”, which is auto-generated and can be opened by Notepad or Excel directly.

## Configure the Device

Before using this device, the user has to setup the recording interval and synchronize the computer clock to the device. After finishing the data collection, use a USB cable to connect with a tablet or a laptop to read and analyze the data.



# Check Highest & Lowest Temperature During Delivery

• This device implements a real-time clock which supports time-stamp function, and the user can use a RFID reader to read the highest and lowest temperature when the product is delivered from the starting point.

Use the **MODAT-328/335/531** or any **ISO15693** RFID reader to read the temperature to ensure the perishable product is not spoiled during delivery.

**MODAT Series**

MODAT-328 MODAT-335 MODAT-531

# Applications and Industries

Data loggers are used in a wide variety of industries, especially in restaurants, catering, transportation and medical/vaccine storage. Basically, anywhere temperature is a critical factor in storage or transportation of goods, a temperature logger is useful.
The RFID sensor tags data logger are ideal for keeping track of the following applications:

- Dry ice storage and transportation
- Food fridges and freezers
- Vaccine fridges
- Blood storage
- Freezing foods transportation
- Medical storage
- Environment monitor
- GPS tracking
- Machine abnormality

Vaccines, drugs and clinical trials products need to be shipped within a prescribed temperature range to maintain their efficacy as well as food to maintain its freshness.
The benefits of applying RFID and sensors to perishable goods include improved food and drugs safety, longer vaccines and drug efficacy, more efficient product recalls, reduced costs due to less spoilage, lower inventories, more efficient logistics, and improved customer service.
Temperature logger provides a complete temperature exposure of your perishables record during transport. This technology is helpful for cold chain control and predicts the remaining life of goods.
The RFID sensor tags can be read and configured using a standard ISO15693 compliant RFID reader without the needs of special commands or devices. Tests performed demonstrate that combined RFID and sensor technology applied to the cold chain results in an optimization of quality, an increase in supply chain management efficiency as well as increased savings due to less waste production.

## *Ordering Information*

| Part No. | Description |
|---|---|
| RFID-TP-D-ST-R10 | Temperature sensor tag, data logger, 4GB storage, 0.5°C~1.0°C accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS |
| RFID-VB-D-ST-R10 | Vibration sensor tag, data logger, 4GB storage, ±3.9mg accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS |
| RFID-AL-D-ST-R10 | Ambient light sensor tag, data logger, 4GB storage, ±4 LUX accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS |
| RFID-HT-D-ST-R10 | Humidity and temperature sensor tag, data logger, 4GB storage, relative humidity ±2%, temperature ±0.2°C, 13.56MHz, ISO15693, USB 2.0 interface, RoHS |
| RFID-GPS-D-ST-R10 | GPS sensor tag, data logger, 4GB storage, <3m accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS |
| RFID-STP-D-ST-R10 | Slim temperature sensor tag, data logger, 107KB storage, 0.5°C~1.0°C accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS |
| RFID-TP-N-ST-R10 | Passive temperature sensor tag, data logger, 0.5°C~1.0°C accuracy, 13.56MHz, ISO15693, RoHS |

## *Optional Accessory List*

| Item | Part No. | Description |
|---|---|---|
| Adapter power | 63040-290013-000-RS | Adapter Power;Powertron;PA1015-050SIB260;PA1015-050SIB260-838 V0;;Vin:90~264VAC;13W; Erp(NO LOAD 0.3W),Wall Mount/Switchover plug;Vout:5VDC;USB;CCL;RoHS |
| Power bank | 31603-000042-RS | Battery Pack;Li Ion;T-GEE;5811-TCTWMX312A;Maxcell;NA;6200mAH;3.8V;1S 2P; CCL;RoHS |
| RFID tag reader | RFID-ST-RD-R10 | RFID Sensor Tag Reader, 128x64 OLED, 107KB Storage, 13.56MHZ, ISO15693, USB 2.0 interface, 650mAh. |

Adapter power Power bank RFID tag reader

# IEI Intelligent Home Automation

IEI intelligent home automation provides a series of solutions to simplify your daily life with the element of intelligence. Integrated with home automation, lighting control, smart home or building network technologies, our solutions variously fit into homes, office buildings, hospitals, and retailing environments. Combining IEI ICELOG with home automation kits and Z-Wave technology, you will have full control of your intelligent home at any time in any location.

## Harmonizing IEI Products and Z-Wave Technology

IEI intelligent home automation products and Z-Wave technology use a low power radio frequency (RF) 900MHz control protocol to achieve reliable communication and operation among devices, such as lighting, residential access control, entertainment systems and household appliances.

| Comparison Chart | | |
|---|---|---|
| | Z-Wave | Bluetooth |
| **Frequency (Hz)** | 868.42M (Europe)<br>908.42M (USA) | 2.4 G |
| **Typical coverage range (m)** | 30-100 | 10 |
| **Highest transmission speed (bit/s)** | 9.6 /40 | 1M |
| **System boot time (s)** | 0.5 | 3 |
| **Receiver sensitivity (dBm)** | -98 | -70 |
| **Advantage** | Simple architecture, low cost, support bettery power supply equipment and unified specifications | More players and plug-and play |
| **Shortage** | Single chip provider and simple protocol | Complicated system, short transmission range and use hight power consumption |
| **Applications** | Medium quanitiy equipments and not frequently use. Small data base | Ad hoc network, audio message, video and graphics. Large data base. |

# IEI Intelligent Home Automation Kit

IEI home automation solution kit is an IoT-based solution that lets all your home electronics communicate to each other, and to you, via the ICELOG tablet device. The communication is made through the simple, reliable and low-power radio waves that can easily travel through walls, floors, and cabinets. Z-Wave functionality can be easily set up for the IEI home automation kit devices in your house, even for the devices that you wouldn't ordinarily think of as "intelligent," such as appliances, window shades, thermostats, and home lighting. The total home automation solution kit is easy to set up and to pair with devices. The cloud solution can also be applied by using QNAP NAS product family for backing up all of your security footage video data.

IEI home automation solution kit unifies all your home electronics into an integrated wireless network, with no complicated programming and no new cables to run. The ICELOG tablet enabled device can be effortlessly added to the network, and lets you control these devices in the ways you want, even when you're not at home. You can control your IEI home automation products remotely from anywhere in the world with use of your laptop via the Internet, or even with your cell phone!

## Intelligent Light System

Luminance equipment control and passive security for "lived-in" look

Plug-in switch on/off

## Intelligent Security and Alarm System

Infra-red sensor, door sensor, gas detector, security system, camera and alarm control

Wireless security IP camera

Dimmer control module

Door and window sensor

Alarm

PIR sensor (motion sensor)

Garage doors controller

## Intelligent Entertainment Equipment Control

Air conditioning equipment control, entertainment equipment control and home appliance control

Thermo contorl module

Alarm button